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RAILWAY AGE

Public Works, Private Business and Recovery

We have always been skeptical about the efficacy of a "public works" program as a means of pulling industry out of depression. In a country such as the United States, depression and the resulting unemployment are due to a decline of investment, production and commerce in private industry, and can be remedied only by a revival of private business. Consequently, the goal of any effective recovery program must be prosperity and full employment in private industry.

Consider what has occurred in only two of the country's great private industries as illustrating the need for concentrating on the improvement of private business. Total expenditures for home building and home modernization have been ten billion dollars less in the five years ending with 1933 than they were in the five years ending with 1928. Railway capital and maintenance expenditures have been about five billion dollars less during the last four years than they would have been if they had averaged as much annually as in the four years ending with 1929. Expenditures in these two industries alone have been reduced by the depression almost five times as much as would be expended in carrying out the entire public works program of the administration. Public works, unlike homes, and transportation and industrial plants and equipment are built from the proceeds of taxation. The taxes are collected from private industry, and tend to reduce its profitability and expansion.

Public Works in Competition With Private Industry

An extensive public works program can therefore avoid hindering recovery only if other economic conditions are such, or are made such, that possibilities of profit in private business appear which outweigh the increased taxes. Certainly any public works program ought carefully to avoid including any projects which will definitely compete with and destroy the profitability of private enterprise and thus undermine taxable values. Yet that is precisely what some of those directing the public works policies in Washington seem to be trying to accomplish.

There is just as much immediate employment and stimulation to capital goods industries from expenditures on public improvements which do not compete with private business as from those that do. The vast majority of farms in this country are located upon unsurfaced roads. To provide good farm-to-market roads would increase employment and stimulate capital goods industries, while not involving investment which would compete with, and partially destroy, existing investment. Yet Federal Administrator Ickes' main concern would appear to be, not with such roads as these, but with arterial highways paralleling existing transportation facilities. In a recent address at Baltimore he said:

> There has been urged upon us for serious consideration from many quarters the building of at least one super-highway all the way across the country, from which branch roads at appropriate points could diverge. That at least such a transcontinental arterial highway will be built in the future there can be no doubt, thus presenting a problem which the National Planning Board should lose no time in studying.

Competition With Railways, Power Companies and Farmers

Not only that, but Mr. Ickes is planning a great waterway-power-flood-control development for the Mississippi and all its tributaries and has appointed a large board of engineers to work out its details. The purpose of the waterway development is, of course, to transfer most of the cost of transportation from shippers to the taxpayers. The power development project is a scheme similarly to provide electric power largely at the expense of the taxpayers in competition with private industry. Flood control, however desirable otherwise, will add to our cultivated lands and increase the production of agricultural products. Mr. Ickes proposes, therefore, to use taxpayers' money on a gigantic scale to compete with the railroads, the power companies and the farmers. As the range of industries with which the government competes is enlarged, the field where taxes can be collected is correspondingly narrowed.

This is a peculiar way to go about promoting confidence in the future of private enterprise and stimulating the return of prosperity. Considered in connection with the St. Lawrence project, which is designed to destroy existing avenues of trade and industry between the

Middle West and the Atlantic seaboard, and divert the stream through northern New York and Canada, it would appear that the government administrators of recovery are threatening the destruction of capital values on a scale never before witnessed in times of peace.

The Rail Program—A Contrast

In striking contrast with projected expenditures by the national, state and local governments which will be permanently burdensome to the taxpayers, and at the same time promote unfair competition with industries that pay taxes, is the successful effort made by the government to get orders placed for 844,000 tons of rail for the railways. The government loans to be made to part of the railways to buy rail and track fastenings probably will never cost the taxpayers a penny, because ultimately the money loaned will be repaid with interest. The expenditure will be made upon transportation properties already in existence and, therefore, will create no new competition with any private industry. It would have to be made some time anyway and, therefore, will involve no economic waste.

At the price agreed upon, the 844,000 tons of rail will cost about $30,000,000, while the 244,000 tons of track fastenings necessarily accessory to it will cost about $12,000,000, a total of approximately $42,000,000. It will be necessary to buy, in addition, frogs and switches and certain other materials and, also, some equipment with which to lay the rail. These purchases from manufacturers will not only give business to them and work to their employees, but will create demands for railroad transportation, steamship transportation and the production of ore.

Effects on Railroad Employment

On the railroads themselves there will be required the employment of train service and maintenance men, first, to deliver and lay the new rail; second, to lay in secondary tracks the old rail replaced by the new rail, and, third, to resurface tracks in which rail is laid, all of which will give employment to an average of about 20,000 men for a period of almost six months.

While these figures are substantial, they are small compared with those that would be arrived at by estimating the amount of expenditure and employment that would be required to make good all the deferred maintenance that has accumulated in railway tracks. Since little of the new rail to be ordered will be rolled in time to be laid this year, it is estimated that the deferred replacements of rail which will have accumulated within the four years ending on December 31, 1933, will amount to 3,400,000 tons. This estimate allows for the reduced wear due to the decline of traffic handled during the depression as well as the extension of rail life brought about by welding battered rail ends, etc. To take up these deferred replacements at the rate of approximately 700,000 tons annually during the next five years, in addition to laying about 1,500,000 tons annually in the process of normal maintenance, would require the laying of about 2,200,000 tons annually throughout the next five years. This is about the amount of new rail that actually was laid annually in the five years ending with 1929 when tracks were in good condition, but is more than twice as much as was laid in 1931 and probably six times as much as has been laid annually in 1932 and 1933.

As the orders now to be placed under the agreement reached by the government, the railways and the steel manufacturers amount to only a little more than one-third of the rail and accessories that will need to be bought annually during the next five years to restore tracks to their pre-depression condition, they are important only because they will result in such a large increase over the purchases and replacements made during the last two years. They are, nevertheless, gratifying because they will help to stimulate business when it greatly needs stimulation.

What is the Trend of Business?

The need for expedition in doing whatever the government can do to change the trend of business is but too plain. The Federal Reserve Board issued last week its regular periodical statement regarding the trend of business. It showed that the trend is downward, especially in most industries that have become subject to codes and processing taxes. General Johnson, the administrator of N. R. A., immediately challenged the Federal Reserve Board's statements as incorrect. He tried to disprove them with statistics showing that employment and pay rolls have increased. The Federal Reserve Board is right about the trend of business. General Johnson is right about employment and pay rolls. This raises very directly the question of how sound and effective some of the government's recovery policies are.

Reductions of hours of work and advances of wages have been predicated upon the assumption that increases of industrial employment and pay rolls would stimulate business. Freight car loadings are the best single measure of the total volume of business activity, and, General Johnson to the contrary notwithstanding, they demonstrate that for three months the trend of business has been downward. In July car loadings were 61.6 per cent of the 1925-1929 average; in August, 58.1 per cent; in September, 57.6 per cent, and in the four weeks ended on October 21, 56.8 per cent. General business is still better than a year ago, but worse than at any time since June. If freight loadings had been relatively as large in October as in July, they would have been at least 55,000 cars a week, or about 8 per cent, greater in October than they were.

How Stimulate Recovery?

When an increase in industrial employment and pay rolls is accompanied or followed by a much less than seasonal increase in business, which is equivalent to a decline, what happens to the theory that increased in-

dustrial employment and pay rolls will necessarily stimulate business? Old-fashioned economists had been wondering how the "new deal" economists would explain the recent trend of business. They hardly expected that General Johnson or anybody else would dispute rather than explain a plain fact. However, those who know the usual atmosphere of Washington should not be surprised. Meantime, intelligent public opinion outside of Washington continues to think more strongly every day that the administration should devote more of its energies to recovery and less to revolution.

It is essential to recovery that private industry shall be given opportunity to finance its expansion. As long as production and commerce are more than 40 per cent below the prosperity level, there can be no large and permanent increase of employment and pay rolls. As long as private industry cannot finance its expansion, there can be no large increase of production and commerce. Government policies which tend to monopolize the market for capital and to restrict profits in private business tend directly to delay financing of the expansion of private business. The vicious circle of cause and effect which is delaying economic recovery, and thereby delaying the increase of employment upon which the government so ineffectively puts so much stress, can be broken only by changes in government policies which, by stimulating private industry, will create a greater natural, and therefore effective, demand for capital goods and for labor with which to produce them. Increased employment and pay rolls are naturally effects, not causes, of better business—as all experience, including that of the last three months, has shown—and as long as the government, in its efforts to accomplish a revolution, tries to create the effects of better business instead of helping to cause it, recovery will continue to be delayed by it.

Concerning "Reciprocal Buying"

Co-ordinator Eastman has publicly referred more than once to so-called "reciprocal buying." In his recent address before the Associated Traffic Clubs he said: "One thing that has caused as much trouble and disturbance in railroad conditions in this country as any other from the very beginning has been the effective use of the so-called 'traffic club' by big shippers. * * * We have our eye on that 'traffic club,' and if we can in any way make it a stuffed club or otherwise soften its blows, or banish it entirely, we are strong for doing just that thing." The best feature of the N. R. A. is its effort to reduce unfair competition by getting industries to adopt and observe codes for that purpose. Nothing else has given so much excuse, or actual cause for government interference in business, as the various forms of racketeering or downright dishonesty that became more rampant than ever during the recent period of prosperity and have been exposed during the depression. There are questions of ethics involved which this paper does not discuss. The questions of business involved are another matter. As current experience is only too strongly emphasizing, such practices are in the long run the worst kind of business, both because they tend to demoralize and ruin business, and because they intensify the demands for government interference.

The coding of fair competition affords an opportunity for railway equipment and supply manufacturers to reduce or to eliminate "reciprocal buying." There is no true reciprocity when the traffic of a big shipper is used to cause a railroad to buy from a company from which it otherwise would not buy, to buy something that it otherwise would not buy or to pay a price that it would not otherwise pay. Every code of fair competition adopted by any branch of the railway equipment and supply manufacturing industry should condemn "reciprocal buying." The co-ordinator of transportation, in his efforts to promote economy in railway operation, probably would be justified in using his influence with N. R. A. to get such provisions put into the codes. The entire tendency of "reciprocal buying" is to increase the operating costs of the railroad industry without any compensating advantages.

Is Standardization Desirable?

To what extent is it desirable to standardize materials and designs? Should standards be made mandatory? Will standardization curb progress? These and allied questions are very much before the railways as a result of the interest that Federal Co-ordinator Eastman and his staff are taking in the elimination of preventable waste.

There is little new in the idea of standardization. Several railway associations have done outstanding work for years in harmonizing conflicting designs of individual roads and incorporating the best of each into a single design which is presented as "recommended practice." Acceptance of these designs has been made mandatory as to certain details of equipment interchanged between roads, but the standards have in general been presented as "recommended practice" for voluntary acceptance by the individual roads. This independence of action has, of course, retarded the universal use of the standards, but the trend has been definitely in the direction of standardization.

With the appointment of the federal co-ordinator of transportation, those who desire more rapid progress in standardization have seen an opportunity to promote it by enlisting the aid of the co-ordinator in bringing pressure to bear on the roads to adopt such standards as have been developed by various associations. As a result, this subject is being agitated more energetically today than at any time since the period of federal control, and the statement is being disseminated through more than one channel that the co-ordinator will *force* the roads to accept any standards that may

be promulgated by the various railway associations. While there is good reason to question the accuracy of this interpretation of the attitude of the co-ordinator, it is more to the point to question at this time the extent to which rigid standardization will promote the best interests of the roads.

American industry has long been characterized by its individualism. In few branches of American industry has this characteristic been more pronounced than in railway transportation. The independence of action of such outstanding leaders as Hill and Harriman has found its counterpart in the department heads on many roads, each working out his own solution of problems that were more or less common to all. This independence of action has contributed greatly to the development of the transportation machine. At the same time, it has given rise to a wide variety of designs, each reflecting the individual ideas of its originator and all adding to the cost of producing the materials required. Out of this added cost has arisen a demand for greater unity of action to the end that production costs may be reduced.

That much reduction should be effected in the multiplicity of designs for many of the materials in use is self-evident. Whether one rigid standard will suffice is another and equally serious question, however. In the constructive work which has been done by the Division of Simplified Practice of the Department of Commerce, it has normally been found that where a multiplicity of designs prevail, the overwhelming preponderance of the production is from a relatively few designs, and that, as a result, many of the little-used designs can be eliminated and production simplified with relatively little disturbance to the users. Obviously, this is the first step in standardization and one which is open to little question as to merit. For the present it would appear to be a logical goal for those who are now so actively advocating standardization of railway materials. This, rather than rigid standardization, is the goal of the co-ordinator. So far as economy of production is concerned, such simplification will effect most, if not all, of the economies possible through rigid standardization because of the large quantities in which the railways normally purchase their requirements, quantities sufficiently large to offer maximum economy of production.

In considering rigid standardization, one faces the fact that most standards represent a compromise between conflicting ideas, based in part on individual experience and opinion, and in part also on differing conditions. Such standards fall short of meeting the present practice of the more advanced roads. To require or to expect such roads to accept compromise standards will serve not only to arrest progress but actually to force retrogression. In this respect, terminology in railway parlance differs from that prevalent in numerous other industries in that the railways commonly accept a standard as fixing both maximum and minimum requirements, whereas elsewhere it not infrequently determines the minimum requirements only.

Standardization confronts another perplexing problem in its attitude towards patents. Progress in railway design has been fostered largely through the initiative of companies which perfect and merchandise improvements under the protection afforded by patents. In developing standards, there are those who attempt to so design as to avoid all patents, a practice which commonly leads to less efficient results. On the other hand, there are those who prefer to standardize only on those details that are more or less common to all, allowing promotors of patented devices to present the merits of their individual designs as actively as they may desire. This was the attitude taken by the co-ordinator in response to a suggestion that he approve as standard a particular design of joint bar developed by the A. R. E. A., when he designated only the bolt hole spacings and locations, leaving the roads free to select the design of bar which they think best meets their needs.

In still another respect, rigid standardization is to be questioned at this time. In general, it is being applied to materials which are already in use on individual roads. The introduction of a uniform standard results, therefore, in its practical application, in the addition of still another pattern or design on the individual road, increasing its stock of spare parts and adding to its costs—for the time being at least—in a period when every additional cost should be avoided.

It is to be questioned also whether rigid standardization will not retard progress by reason of the increased difficulty that will confront one who visualizes an opportunity to improve an existing practice or design, but who faces the inertia, if not the open objection, of those who see in any departure from existing standards an increase in first cost. The American railways have progressed as rapidly as they have in the past because of the freedom given individuals to develop their ideas, not all of which have proved practical but from some of which have come improvements of great importance. At this time, when the railways are facing the necessity for making greater changes in their service than at any previous time in their history, it is important that no obstacle be placed in the way of the revision of practices and standards of construction that will retard them in meeting new conditions promptly and adequately.

All of the above and other considerations point to the desirability at the present time for caution to avoid the destructive effects of rigid standardization. This is no time for revolution. Rather, it is just as much a time for flexibility of action in meeting new conditions as for the elimination of waste through excessive duplication of designs. For this reason, simplification has much to commend it over rigid standardization as a goal for the present. In this respect, the federal co-ordinator is taking a conservative course that is commendable—a course that is far more conservative than some reports might lead one to believe.

Truck Competition Has Raised the Question: "Shall Railway Transportation End at the Station or Be Extended, by Means of Railroad Trucks, to the Shipper's Door?"

Is There a Demand for Storedoor Service?

Evidence indicates that pick-up and delivery is one factor which has attracted shippers to truck transportation

IS pick-up and delivery service the feature of truck transportation which, lacking in counterpart on the railways, has led shippers to route millions of tons of their freight by truck instead of by rail? Is railroad provision of storedoor pick-up and delivery service for l. c. l. freight the answer to motor truck competition, which will effect the recovery of this traffic?

These are questions which are very much in the minds of freight traffic officers, and rightly so because truck competition and means whereby it may be overcome constitute one of the serious problems with which the railways are confronted. In 1932 the volume of l. c. l. freight originating on the railways was only 15,233,791 tons, whereas 10 years previously, in 1923, it was 44,338,556 tons. It may be argued that there was likewise a very severe drop in all railroad freight tonnage over this period, due to the depression which has paralyzed all business during the past four years. On the other hand, the decline in all freight originating on the railways has been from 1,279,000,000 tons in 1923 to 646,000,000 tons in 1932. Consequently, the drop in total railway tonnage was almost exactly 50 per cent, while the decline in l. c. l. freight tonnage was 66 per cent. In comparison with 1911, total originating tonnage in 1932 represented a 28 per cent decrease, while l. c. l. originating tonnage represented a 57 per cent decrease. Finally, total railway tonnage increased fairly steadily, year by year, from 1923 to 1929, while l. c. l. tonnage took an opposite course, declining steadily year after year, with only one slight exception, throughout the period from 1923 to 1932.

There is one fundamental cause for this decline in the l. c. l. freight traffic of the railways. The success of freight forwarding companies, a number of them railroad-sponsored, has been one cause. But the major cause is truck competition, a competition which has become steadily more severe throughout the last decade and has been so successful that current estimates of the ratio of intercity truck traffic to railroad traffic are somewhere between 1 to 10 and 1 to 7. These estimates, furthermore, afford some confirmation of the presumption that truck competition has taken its toll of some railroad carload freight, since the entire l. c. l. tonnage of the railways has never approached 10 per cent of the total railway tonnage.

Action to meet and overcome truck competition, in view of these facts, is urgently demanded as a fundamental part of the campaign of the railways for freight traffic recovery. What forms should that action take? Should the provision of storedoor collection and delivery service for l. c. l. freight be one important form? If shippers want railroad-provided pick-up and delivery service for their traffic, the adoption of such service by the railways should assist in the recovery of freight traffic. Do shippers want this service?

There is no universal view upon this question among

railway officers. The opinion of those who would answer the question in the negative has been concisely stated by President F. E. Williamson of the New York Central, who, in correspondence with Co-ordinator Eastman concerning the proposed provision of pick-up and delivery service by the Pennsylvania, said, "It has been our experience that the demand for this service is not due to a desire on the part of shippers for the service as such. They are only interested in it as a means of reducing their transportation costs." It is the conviction of the New York Central, as stated by Mr. Williamson, that provision of storedoor pick-up and delivery service, as it has already been provided by railways, would constitute an unwarranted general reduction in l. c. l. rates, would bring about an unfortunate dissipation of railway revenues, and would not greatly improve railway transportation.

Nevertheless, examination of the situation throughout the country appears to indicate that this viewpoint is exceptional rather than common. The majority of railroad officers and of railway executives must have found that there is an appreciable demand on the part of shippers for this additional railway service, to complete the job of transportation which the railways have been doing. Otherwise, it is inconceivable that storedoor collection and delivery service should have been adopted so widely by railways in the far West, in the Middle West, in the Southeast and in New England.

Certainly this is the case with a number of officers who have been assigned by their railways to find the answer to this question with respect to their own territories, and who have supplied us with their conclusions. One officer, in giving his answer to the question of whether shippers want pick-up and delivery service, says, "The best evidence we have that shippers want storedoor collection and delivery service is the fact that the tonnage handled in our pick-up and delivery service has showed a gradual increase. Pick-up and delivery service, in getting the traffic back to the rails, is important to the extent that the agencies with which we compete are giving pick-up and delivery service, the rates of the trucking companies including both pick-up and delivery."

Another railroad officer, whose convictions are identical with those of most others who have given close consideration to the question, says, "When we began to give serious consideration to the falling off of our l. c. l. tonnage and found that it was being lost to agencies which furnished collection and delivery service, it became self-evident to us that shippers wanted this service. There had been no particular organized demand on us to give pick-up and delivery, but competitive agencies that did so were favored. In my opinion, pick-up and delivery service is necessary to get the traffic back on the rails. In the comparatively short time that truck lines have furnished this complete service, shippers very generally have accepted it and, in many cases, have disposed of the drayage equipment which they formerly used for warehouse-to-depot deliveries. In local territory particularly, the situation does not permit a choice but demands of the railroads that they meet fully the service of their competitors if they wish to remain in business."

Shippers Have Spoken

The shippers themselves have stated their desire for railroad-operated pick-up and delivery service in connection with a number of inquiries which have been made. The most extensive of these inquiries is being made at the present time by the Section of Transportation Service under the Federal Co-ordinator of transportation. Questionnaires have been sent to approximately 100,000 shippers and receivers of l. c. l. freight handled by railroads, express agencies, trucking companies and forwarders, as a "first step in a nation-wide market survey of transportation." One of the subdivisions of this questionnaire asks shippers to state what reasons have led to their use of truck transportation, among such suggested reasons being storedoor pick-up and delivery service.

The information gathered by this questionnaire has not yet been made public by the co-ordinator's organization. An indication of what the survey is showing, however, was given by Co-ordinator Eastman in a letter to President Williamson of the New York Central, in the correspondence concerning the Pennsylvania's plan for instituting pick-up and delivery service. In his letter, Mr. Eastman said, "The merchandise survey which is under way in the Section of Transportation Service, while far from complete, has gone far enough to indicate unmistakably that in the territory served by your lines and those of the Pennsylvania, an overwhelming majority of your patrons are not only demanding collection and delivery service but are patronizing other transport instrumentalities which furnish that service, and in part upon that account." It seems obvious, therefore, that when the survey of the Section of Transportation Service is completed, it will strongly confirm the already general belief among railway men that shippers do want pick-up and delivery service.

Universal or Limited Service?

If it be granted, then, that there is a demand on the part of shippers for storedoor collection and delivery and that there is at least a reasonable chance that the provision of such service by the railways would assist them materially in their effort to recover traffic from competitive truck transportation, how freely should it be offered? Should free pick-up and delivery service be offered universally on l. c. l. freight or should free service be limited to traffic moving, perhaps, 250 miles or less, in what has been termed "the effective zone of truck competition?" The most common practice, among railways which have already adopted storedoor collection and delivery, has been to begin with the provision of free service subject to a mileage limitation somewhere in the neighborhood of 250 miles. Subsequently, some of these roads have found it advisable to raise the mileage limitation. Such has been the case this year on the Louisville & Nashville and other lines in the Southeast which originally instituted a plan of free pick-up and delivery service for l. c. l. freight moving 230 miles or less and very shortly afterward increased the radius of the free zone to 360 miles.

Just as truck competition has been the principal reason for the provision of pick-up and delivery service, so has the supposed nature of truck competition been the deciding factor in the limitation of the free zone, the theory having been that really effective truck competition is limited to freight moving about 250 miles or less, and that the railways need not go to the expense of providing free pick-up and delivery service on freight moving greater distances.

Truck Competition Not Restricted

Unfortunately, this theory concerning the effective radius of truck competition is only partially justified, if justified at all, by the facts. While it is true that truck competition is most severe within the 200-mile radius, it is likewise true that truck competition for freight moving substantially greater distances is strong and growing. Overnight delivery by motor truck of freight moving 300 miles or more from the larger shipping

centers of the country is a common occurrence, so that, to limit the area in which free pick-up and delivery service is offered by railways is to limit sharply the effectiveness of this improvement of rail transportation.

The situation is put in this way by the officer in charge of the freight traffic department of a railway which has successfully used pick-up and delivery service: "When railroads are prepared to acknowledge the necessity of furnishing storedoor pick-up and delivery in nearby local territory to meet competition, they should also be prepared to acknowledge that any mileage-limit restriction on this service places a burden on the shipper and consignee which they will get from under at the first opportunity they have to patronize a complete competitive service. In this territory, trucks compete in time and in rates within a radius of 1,000 miles or more."

The viewpoint of this officer has been echoed by the statements of officers in charge of freight traffic on railways which have made the most aggressive and the most successful use of pick-up and delivery service as a weapon against truck competition. They have found that shippers are at a loss to understand why long-haul l. c. l. freight is not treated as well as short-haul traffic, and can see no sound reason why a railroad truck should pick up some freight free, but leave or charge extra for other freight lying on the same platform and going to the same freight station.

In the Issue of November 11

This is the first of two articles on storedoor collection and delivery, which begin the second part, concerned with freight traffic, of the Traffic Development Series. The next article will deal with the results in increased traffic secured by railways which have offered pick-up and delivery service to their patrons. It will appear in the *Railway Age* of November 11.

The mileage limitation matter constitutes a question deserving the serious consideration of railways undertaking the provision of pick-up and delivery service. Possibly no general rule can be laid down, but the evidence to be found in the experience of the railways which have gone farthest with collection and delivery appears to indicate that service of this sort, unless offered to all shippers of l.c.l. freight without narrow restrictions, will never be completely effective in accomplishing its aim of so improving railway service as to make it more attractive than truck service.

A Job for the Express Agency?

Finally, what is the medium by which railways adopting pick-up and delivery should put this service into effect? Ordinary practice at the present time is for each railway to arrange for its own pick-up and delivery trucks, either directly or by means of a subsidiary company. The suggestion has been made and has been given considerable discussion, however, that the Railway Express Agency, owned by all the railways, is in a position to work effectively for the railroads in connection with projected changes in their methods of handling l.c.l. freight. The Railway Express Agency has been suggested either as the logical operator of trucks in terminals for the pick-up and delivery of railroad l.c.l. freight or as a new medium for the handling of all l.c.l. freight, co-ordinating railway and highway service in the same manner as it now does in the handling of express traffic.

This proposal has not yet been given the general consideration necessary to final conclusions concerning it. Some railway officers, concerned with the meeting of truck competition, have expressed themselves as finding little merit in the suggestion. Others insist that the Railway Express Agency, owned by the railways, is a nation-wide transportation facility with a large existing fleet of motor vehicles and with the organization for their operation and maintenance; that the express agency, like the railways, has suffered from truck competition; that its interests are those of the railways, and that its operating set-up would lend itself to useful co-operation with the railways in meeting truck competition.

Can Railways Afford It?

The question most frequently raised in any discussion of whether or not the railways should provide pick-up and delivery service for l.c.l. freight is: "Can the railways afford it?" In the opinion of many, the railways, if they wish to prevent further loss of l.c.l. traffic and deeper inroads in some kinds of their carload traffic, and if they wish to recover business which they have already lost, cannot afford not to render pick-up and delivery service. Shippers have been introduced to the convenience and economy of complete transportation by railway competitors. There seems to be little doubt that shippers want the same complete transportation service from the railways, and that means store-door collection and delivery.

The provision of pick-up and delivery service for l.c.l. freight is no cure-all. It alone will not rout truck transportation and effect the return to the rails of traffic which the trucks have been carrying. On the other hand, the evidence is strong that the general adoption of storedoor collection and delivery is a part—an essential part—of the railways' freight traffic development program.

Willard and Eastman Address Traffic Clubs

MANY more questionnaires and some "radical" proposals were promised by Joseph B. Eastman, federal co-ordinator of transportation, in his October 24 address at the banquet held in conjunction with the twelfth annual meeting of the Associated Traffic Clubs of America in Baltimore, Md. Other speakers at the sessions which extended over two days—October 24 and 25—were Daniel Willard, president of the Baltimore & Ohio, and Roger D. Lapham, president of the American Hawaiian Steamship Company. Results of the election of officers, held on October 25, were reported in the *Railway Age* of October 28, page 643.

Mr. Eastman's address was in the nature of a progress report since he could at this time "only say that we are on our way and tell where we hope to go, and how." Referring to his questionnaire plan for collecting data, the co-ordinator said that he has been "almost afraid I'll be called 'Questionnaire Joe' before I get through." Since, however, he knew of no better data-gathering method, Mr. Eastman did not intend "to apologize for these questionnaires" but on the contrary revealed his expectation to issue "a good many more before we are through." He therefore called the attention of his "railroad friends who are keeping rather close tab on the cost involved in preparing the answers" to the fact that "here, just as they argue in fourth-section cases, the important thing is the added expense and not the allocated cost." Also, he was gratified to know that

"in this instance they have found cost-finding practicable."

Recalling his statement of last July to the effect that "we would never get anywhere in our search for improvement if we do not have with us those who think there is something to find," the co-ordinator said that there are many such men in railroad organizations and that it was his hope "to bring the ideas of these men to the top, analyze them, sift out the best and co-ordinate these for general application." Mr. Eastman illustrated the foregoing by reference to the work of his Section of Transportation Service, speaking in this connection as follows:

It has the spirit of the adventurous pioneer, and is running at high speed and pressure and on a fixed schedule of performance. Adventurous pioneers sometimes plunge ahead a little recklessly, but in this instance there will be plenty of restraining influence from the caution and conservatism of the old timers in the railroad game, so that there need be no fear on that account.

This section began its work with a survey of the less-than-carload, package freight situation. The basic data have been gathered and are now being analyzed, and a report with definite recommendations will be forthcoming before the end of the year. I shall not anticipate the conclusions which will be reached, except to say that I believe that they will be radical, in the sense that they will go to the root.

Less-than-carload traffic produces less than 2½ per cent of the freight tonnage which railroads carry and about 10 per cent of the total freight revenue, but in 1932 it required 32 per cent of the total loaded cars to move it. The average loading of carload freight is about 34 tons per car, but the average loading of less-than-carload freight in 1932 was less than 2 tons per car. The type of car which is built to meet the requirements of carload freight is also used to handle these small lots of package freight.

Under modern conditions there is no essential difference in character between less-than-carload freight and the shipments which express companies handle, and a large amount of the same kind of traffic is handled by the forwarding companies, which assemble small lots so that they can be shipped in carload quantities and live on the spread between the carload and the less-than-carload rates. Another large quantity of the same kind of freight is hauled by trucks. These several services require the maintenance of separate organizations, soliciting staffs and terminal facilities which involve a large amount of duplication, and this duplication is magnified by the fact that each railroad system has its own separate organization, to say nothing of the considerable number of forwarding companies and the multitude of individual trucking operations.

Motor Trucks Handled 54 Per Cent of Package Freight Last Year

Our figures, which are approximations, relate only to movements by land, and do not include the parcel post, indicate that in 1932 railroads carried 32 per cent of the package freight; forwarders moved 11 per cent, the bulk of which went by rail; express companies moved 3 per cent, and trucks handled 54 per cent. These figures are based on tons and not on ton-mileage. The percentage of ton-miles would be considerably larger for the railroads, as their hauls are longer. However, the railroad per cent of tonnage which I have indicated is overstated through the probable inclusion by some shippers who answered our questionnaire of their carload with less-than-carload tonnage.

Of the tonnage handled by trucks, our figures, which do not include city or local service, indicate that 48 per cent moved for distances under 50 miles, 41 per cent for distances between 50 and 250 miles, and 11 per cent for distances in excess of 250 miles. A check made by a large eastern railroad system in May of this year showed that 8 per cent of its less-than-carload tonnage moved for distances under 50 miles, 64 per cent of distances between 50 and 300 miles, and 28 per cent for distances in excess of 300 miles. These figures, moreover, understate the long-haul tonnage, because they relate only to system hauls and do not include the haul of other lines where the traffic was moved jointly with other railroads. I may say, also, that the figures which I have given indicating the division between the various forms of transportation probably understate the express traffic, since they were obtained from returns to questionnaires which did not cover adequately the many small shippers who use express service. Other figures indicate that the express tonnage is about 20 per cent of the less-than-carload rail tonnage.

As indicating how the railroads handle their less-than-carload freight, there are 6 railroads operating out of New York in the direction of Chicago, but there are as many as 44 different routes over which merchandise cars operate from New York to Chicago on regular schedules. In consequence it took about 12,000 cars to handle this traffic in 1932 and about 11,000,000 car-miles, with an average load per car of about 4 tons. On the basis of the average load of the forwarding companies between the same points, the same traffic could have been handled as adequately and expeditiously with 2800 cars and about 2,500,000 car-miles.

The largest element of cost in the handling of less-than-carload freight is incurred at the stations and transfer platforms and in interchange. Another handicap which the railroads suffer in competition is the character of their less-than-carload rate structure and classification, which were designed at a time when truck competition was unknown and give great weight to the so-called value of the service as well as to cost of transportation.

In contrast with these conditions is the fact that merchandise freight is continually growing in relative importance, because of the development of hand-to-mouth buying and the growing demand for the frequent movement of small lots at high speed.

These are only a very few of the salient facts, but I believe that they sufficiently indicate the need for studying the manner in which merchandise traffic is now handled and the probable opportunities for important improvements. These involve greater concentration of the traffic, reduction of transfer and interchange, the use of the truck where it is a better agency than the railroad, the use of cars or other containers well adapted to the characteristics of the traffic, the provision of store-door receipt and delivery, and reconstruction of the rate structure on new lines and principles. We are going into all of these matters.

Travelers' Wants Being Studied

The passenger traffic survey upon which the Section of Transportation Service is now embarking, Mr. Eastman said, will to a considerable extent be an effort to develop what the American traveler wants in transportation. He continued:

Does he want speed of 90 miles an hour or more? Does he demand personal pick-up and delivery? How much is he prepared to pay for transportation? Why does he ride automobiles, and why doesn't he ride the railroads? What is his candid opinion of railroad selling and railroad advertising? What faults has he to find and what improvements has he to suggest at stations and in coach, Pullman, parlor car and diner services and accommodations? Does he want sound proofing, air conditioning, rubber tires or other devices for comfort in traveling? This market survey will be supplemented by considerations of possible ways and means of improving the service and at the same time making it more economical to furnish.

The study of carload traffic will be undertaken about December 1, Mr. Eastman revealed. It will be a comprehensive one, entering all phases of this service and the equipment used in supplying it. The final study to be undertaken by the Section of Transportation Service, the co-ordinator said, will begin in January and will deal with the selling and pricing of transportation.

Consolidation and the Traffic "Club"

Mr. Eastman expressed a distaste for the subject of consolidation "because of the atmosphere, not to say aroma, which always gathers around it." When he looks back over the past dozen years, Mr. Eastman is struck "by the money and time which railroads and their executives have spent on dreams of empire and consolidation strategy which might have been devoted to the better adjustment of their equipment, service and charges to present day conditions."

In closing Mr. Eastman mentioned—"the effective use by large shippers of the so-called 'traffic club,'" not, he added, "such clubs as are gathered together in this association" but he did not think he needed to expatiate more than that for he felt that those in the audience "know much more about it" than he does.

Address of Daniel Willard

Mr. Willard, at the outset of his address, which was a discussion of the railroad outlook, contrasted 1929

(*Continued on page 658*)

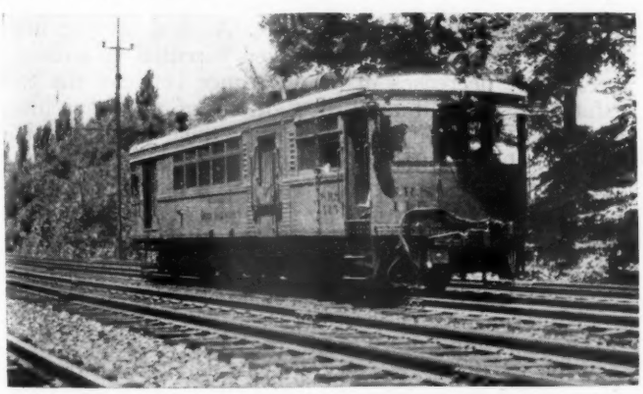
Rail Flaw Detector Greatly Improved in Five Years

More than 100 improvements enhance reliability, accuracy and speed of detection

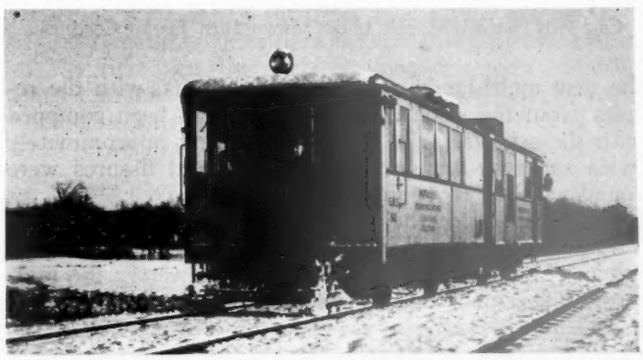
IN the approximately five years that have intervened since the acceptance by the American Railway Association of the first Sperry transverse fissure detector car in October, 1928, which equipment was described in the *Railway Age* for November 17, 1928, more than 100 different refinements and improvements have been made in the detector equipment, which have largely increased the reliability and accuracy with which rail defects are detected, simplified and clarified the record of defects obtained, and greatly increased the speed with which the equipment can be operated in testing service. Furthermore, in this interval a complete service for testing rails in track has been built up by the Sperry Rail Service Company, which includes 10 modern detector car units with experienced operators, the work of which is co-ordinated by field supervisors and in the main office and research laboratory of the company. Since this service was established in 1929, the cars of the Sperry Company have operated over more than 135,000 miles of tracks on 55 different roads within the United States and Canada. Periodic testing has been done on a number of these roads, some having tested the same territory as many as four or five times, and one road as many as seven times. Two roads have been testing almost continuously.

Test Shows Value of Improvements

That marked improvement has been made in the accuracy and dependability with which these cars are able to detect and differentiate between rail defects is evidenced in the accumulating service records of the cars. Possibly the best and most specific single evidence of the improved performance and efficiency of the modern cars is contained in the results of a carefully planned and conducted comparative test of the original detector car built for the American Railway Association, and one of the cars of the Sperry Company embodying all improvements and typical of the cars in the Sperry fleet. In this test, which was conducted on a special track laid with rails with known defects, found either by one of the earlier detector cars in commercial testing or by a careful hand check test, two consecutive runs were made by each of the units under comparison, recording the defects found in one line of the rails. A summary of the results of the test, which were checked and attested to by representatives of both parties interested, the Rail committee of the A. R. E. A. and the Sperry Company, is given in Table 1.



Looking at the Rear of One of the Modern Single-Unit Sperry Detector Cars in Actual Testing Operation



Winter Rail Testing with One of the Double-Unit Detector Cars

While many of the improvements embodied in the more modern detector car contributed to its superior testing ability, it is felt by the Sperry Company that the most important factor in securing these results is the newer type of searching unit, with multi-tandem coils, with which the modern Sperry car was equipped.

Table I—Results of Two Runs in Comparative Tests—A. R. A. Car and Sperry Car

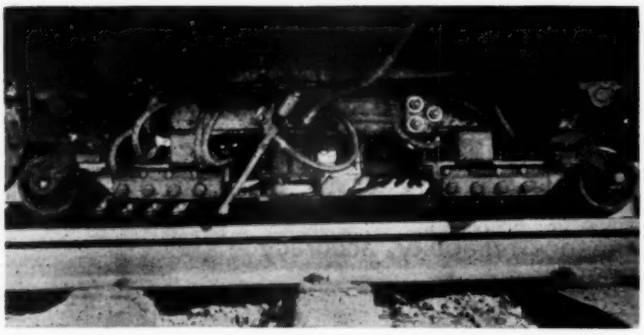
Run No. 1	Transverse Fissures Indicated	Longitudinal Defects Indicated	Surface Defects and False Indications Indicated	Testing Speed
A. R. A. Car	14	2	125	4.70
Sperry Car	28	2	10	5.78
Run No. 2				
A. R. A. Car	18	1	73	4.74
Sperry Car	28	2	7	5.80

Table II—Operating Data from Sperry Fleet Before and After Being Equipped with Multi-Tandem Searching Units

	Miles Tested	Total Fissures Trans. & Comp.	Trans. & Comp. Fiss. Per 100 Track Mi.	Miles Per Trans. & Comp. Fiss.
Before Improvement. With *Old Type* Search. Unit—2 Coil	35587.86	3427	9.66	10.38
After Improvement. With *New Type* Search. Unit—Multi-Tandem Coils	33895.92	6692	19.76	5.06

Greater Efficiency Demonstrated in Routine Service

The superior testing ability of the newer detector cars indicated in the above test is being substantiated in actual testing in the field. This is shown in Table 2, which includes a comparison of the results secured by the entire Sperry fleet of cars before they were equipped with



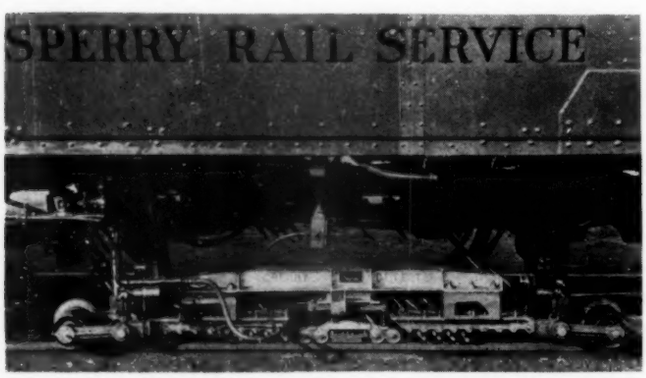
The Rigidly Mounted Two-Coil Searching Unit of the Early Detector Cars Was Found Unreliable Under Many Actual Testing Conditions

the new multi-tandem coil searching units, with the results from the same cars after they had been equipped with these units. The results show that approximately twice as many transverse and compound fissures were found with the more modern equipment.

The integrity of the newer equipment in detecting the hidden defects in rail is confirmed by the experiences of roads which have broken many rails to verify the findings. The experience of one road in this regard, which is said to be typical, is summed up in a statement by the chief maintenance officer that 144 rails with indicated defects were broken and all but one were found to be defective.

Other records which indicate the superiority of the modern cars relate to the increased number of transverse and compound fissured rails found per mile of track tested. These show that whereas 2,489 transverse and compound fissured rails were found in 30,296 miles of tracks tested in 1930, 5,012 such defective rails were found in 37,209 miles tested in 1931, and 5,139 such rails were found in the 30,004 miles of tracks tested in 1932. This increase in the number of fissured rails found is presented graphically in the chart, which shows that the number of transverse and compound fissured rails found per 100 miles of track tested increased from 8.23 in 1930 to 13.5 in 1931, and to 16.95 in 1932. Based on the record of the operation of the Sperry cars during the first seven months of the present year, in which 5,514 transverse and compound fissured rails were found while testing 24,729 miles of tracks, it is estimated that for the full year 1933, there will be found 22.2 transverse and compound fissured rails per 100 miles of tracks tested.

This large increase in the number of fissured rails found per unit of track is significant in view of the fact that much of the track tested during the last couple of years had already been tested during the earlier years and many transverse fissured rails had already been removed. It is significant also in view of the reduced traffic of the last few years, which has undoubtedly resulted in a decrease in the rate of fissure development.



The New Flexibly-Mounted Searching Unit, with Its Multi-Tandem Pick-up Coils, Is Largely Responsible for the Increased Efficiency of the Modern Detector Cars

In the tables and chart mentioned, the number of transverse and compound fissures found is used as a basis of performance or comparison, rather than the number of all classes of defects found and recorded, including such defects as horizontally and vertically split heads, piped rails, etc. This is because, first, transverse and compound fissures are generally the most dangerous failures and, therefore, the most important to detect and remove from the track; and second, because the data on these two types of fissures are more reliable than those covering most other types of defects. The reason for this is that a defect in a rail is reported as a transverse or compound fissure only if its presence, as indicated by the detector car, has been confirmed by a careful hand check test, or by visual inspection in the case of the few "cracked"-out fissures found.

New Searching Unit a Vital Improvement

The induction principle of operation which was finally embodied in the original detector car, in which measurement is made of the distortion in the flux of a heavy

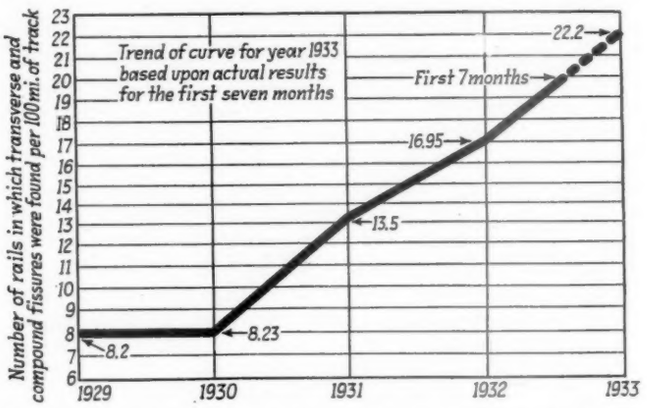


Chart Prepared by Sperry Rail Service, Showing Increased Number of Fissured Rails Found Per 100 Miles of Tracks Tested

current forced through the rail, is retained in the modern detector cars, but practically all of the equipment embodied in these cars represents repeated design and improvement. The most important of these improvements are included in the flaw detecting equipment itself, and particularly in the searching unit, which is now flexibly mounted, independent of the car or other equipment, on the brush carriage.

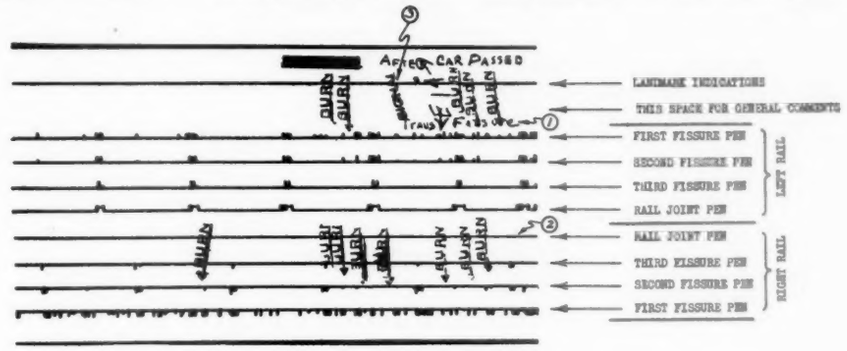
Early experience proved the necessity for developing this flexible mounting of the searching units to replace the original rigid mounting of these units on the detector car delivered to the A. R. A. and on the first Sperry service cars. This proved essential to prevent increases or decreases in the clearance between the top surface of the rail and the bottom of the searching unit, such variations resulting in a change in the intensity of the flux field penetrated by the searching unit, which of itself caused operation of the recording equipment similar to that caused by various rail defects. Such false indications required much time in checking suspicious points in the rails and seriously complicated the tape record obtained, making it difficult to determine actual internal defect indications.

Of equal importance with the flexible independent mounting of the searching unit as a whole was the development of the multi-tandem pick-up coils for this unit, replacing the two-coil searching units used on the orig-

inal detector car and on the first Sperry cars employed in commercial testing service. Early testing in the field soon showed the limitations of the two-coil units in locating fissures. Frequently, the cars failed to locate or indicate certain fissures, while at other times practically identical fissures were detected.

The multi-tandem design of searching unit, which was developed through a combination of laboratory research and extensive tests on a special test track, is shown in one of the accompanying illustrations. This unit is designed to give maximum fissure detection, while at the same time to be influenced as little as possible by such surface defects as wheel burns, flat spots and rail corrugations. Along with the new design of searching units, the detector amplifiers had to be completely redesigned to conform with the circuits of the new units.

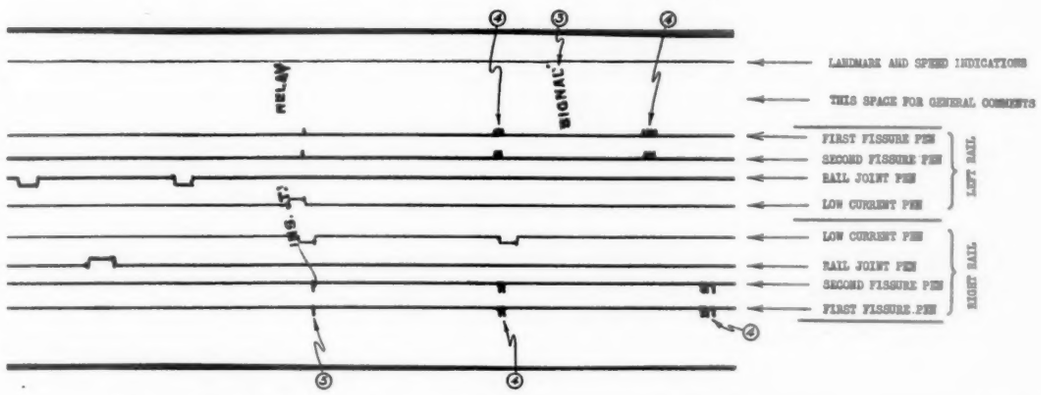
Among other improvements which have been made in the rail flaw detector cars is a series embodied in the generators of the primary current system to improve



Specimen of Early Type Record Tape—1929

Note large number of indications from surface defects, which were hard to distinguish from indications of internal fissures.

(1) Transverse fissure actually missed for this reason, failed after test.
(2) Right rail-joint indicator not functioning.
(3) "Signal" land-mark indication



Specimen of Latest Improved Record Tape —1933

Taken over the same rails tested in 1929—see caption above.

(3) "Signal" landmark indicating same track as in chart above.
(4) Indications during periodic elimination of joint cutout device to test sensitivity of detecting equipment.
(5) Indication at insulated joint.

upon their operating characteristics and to permit their more compact arrangement within the cars. Another series of changes has been made in the rail contact system to insure the efficiency of the electrical contact with the rails, regardless of the cant of the rails, abrupt depressions in them, or their degree of curvature.

Improvement has also been made in the system for raising and lowering the brush carriage, compressed air now being used instead of a hand lever. This improvement has not only speeded up testing operations, but it also insures proper contact between the electrical brushes and the rail, regardless of the condition of the rail surface, which is essential to avoid any decrease in the energization of the rail, with the possibility of missing fissures which would result.

Tape Record is Clarified

In order to improve operating procedure and to permit greater accuracy of control and testing, many improvements have been made in the recording table, the automatic pen unit and the operator's control panel. The scale of the record-tape has been doubled to 1/16 in. equals 1 ft., thus making it easier to read. The pen unit, including new pens, now gives stronger and more effective impulses, and the new pens produce finer lines than those in the earlier equipment, thus separating indications in the case of defects close together.

Of particular importance among these latter improvements is that of clarifying the record-tape. Instead of the three pens used formerly for indicating the magnitude and class of defects in each rail, there are now only two, the pen which recorded the weakest impulses from internal defects having been eliminated. This was made possible by the new type searching units, which give a stronger impulse for the same internal defects, thus recording indications of these defects on one or both of the remaining lines of the record. This elimination of the first pen line, which alone formerly recorded many extraneous surface defects, automatically removed the indications of these defects from the record-tape. This greatly facilitated interpretation of the record, increased the accuracy of testing and permitted a higher testing speed.

Another improvement in the record-tape is that all joint indications, which formerly complicated the defect recording lines, have been removed to two separate lines, one for each line of rails. As a result of this change, the record has been greatly clarified and it is now possible for the tape to record defects close to rail joints without the risk of confusing the defect markings with the joint markings. More recently, the two joint-indicating lines have been made to serve a second purpose, namely, to indicate whether the pen relays are functioning properly and whether the detector circuit is closed.

Three other important pen indications appear on the present record-tape which were not included on earlier tapes. Two of these, one for each rail, record automatically if at any time the amount of current put into the rail, that is, the energization of the rail, falls below a certain minimum. This is felt to be very important to insure proper energization of the rails at all times, which is essential to efficient detection, and has been

of special advantage when testing dirty rails. The other indication added to the record-tape is that of the testing speed. This added record has proved of advantage not only to the operator of the detector car, but also in inspecting the record-tapes in the central office of the Sperry Company, giving a check on the speed of the car as related to the rail conditions found.

In addition to the changes and improvements made in the record-tape, important changes have been made recently in the automatic paint gun system for marking on the rails the points of indicated defects. In the new system the paint marks made are considerably shorter than formerly and are placed more accurately with respect to the location of defects. This has greatly facilitated the determination of the exact locations of internal defects, especially when close to rail joints.

Supplementing these improvements in the detecting and recording equipment of the detector unit, a method of calibration and check during testing operations has been provided on the electrical system, which is said to give assurance that the equipment as a whole is functioning properly and that the separate parts governing the testing of opposite rails are operating with the same sensitivity. To insure that all of the Sperry cars have the same degree of sensitivity, which is essential to a comparison of the records of the different cars, the calibrators on the cars are checked at intervals in the laboratory of the Sperry Company.

Many Phases to Developed Testing Service

Many improvements have also been made in the housing of the detector equipment since the first unit was put in service. The Sperry Company operates two types of detector cars, a double-unit type consisting of a separate detector car pulled by a motor car, and a single-unit type, which is self-propelled. Each type of car has certain advantages for different conditions of testing, one of the particular advantages of the double-unit type being that it can be loaded on a flat car for transfer over long distances. The testing equipment and the testing efficiency of both types of equipment are identical. Furthermore, both types are provided with sanitary and sleeping facilities for the car operators, while the single units have, in addition, a galley where meals are prepared and served. The operating force employed with both types of units is essentially the same, except for the employment of a cook on the single units. This force consists of a chief operator, an assistant operator and a driver or motorman.

As already stated, the original activity in the detection of rail flaws, as exemplified in the detector car of 1928, has been developed by the Sperry Company into a complete rail testing service. This service includes not only the routine testing of the rails in track, but also constant research to develop and improve the detector equipment, and the systematic checking and compilation of the rail failure data which is recorded by all ten of the detector cars.

In assembling these data, which touch practically every phase of the rail problem, even to statistics which show the number and character of the defects found in the different rollings of the different mills, complete daily reports of the operation of the different detector cars and the rail data secured are furnished to the central office, including the actual record-tapes of the tests made. Here, all reports and tape records are examined and checked carefully, and the actual records are then forwarded to the railroads concerned. From the data secured, many supplemental records are also made which, it is hoped, will aid materially in the further study of the transverse fissure problem.

Willard and Eastman Address Traffic Clubs

(*Continued from page 654*)

railway revenue and employment statistics with those of 1932 to show the extent of the decline in business on the railways. The principal cause of this decline, he said, was the depression itself and he thought that there is much reason for believing that the bottom has been reached and that recovery has actually begun.

Another reason for the decline in railway traffic, Mr. Willard said, has been the growth of highway competition, but in this connection he suggested "that the increased volume of business brought to the railroads directly and indirectly by virtue of automobile construction and operation has, in a considerable degree, offset the losses in tonnage taken directly from the railroads by the trucks." Mr. Willard prefaced the foregoing remark with a suggestion that while he did not "wish to minimize the effect on the railroads of the competition of motor trucks, it is equally desirable that we should not exaggerate its importance."

Discussing the attitude railroads should take toward motor competition Mr. Willard recalled a report made in 1917 by him as chairman of the Advisory Commission of the Council of National Defense in which he stated the opinion that "inasmuch as the business of transportation for hire partakes of a monopolistic character, all agencies so used should be subject to governmental regulation in the public interest." This, he said, is still his view and while he thus believes in transport co-operation and co-ordination he is "not certain as yet that it is necessary or even desirable that the railroad, such as has been frequently suggested, should own and operate all such agencies." Mr. Willard would, however, apply to highway carriers regulatory legislation comparable with that to which railroads are subjected and he has no doubt that "all this will be brought about in due time."

He predicted that, if business continue for the remainder of the year "on something like the present basis," a large majority of all the railroads will show at the end of this year "their interest and fixed charges earned, while at the same time they will have increased their expenditures substantially for maintenance and operation." This situation he contrasted with 1932's deficit after fixed charges of $140,000,000 and pointed out that "What the railroads actually needed more than anything else in the way of relief was, simply, a larger volume of business."

Criticizes Prince Plan

Mr. Willard said that the Prince plan of railroad consolidation "carries the principle of consolidation so far as to defeat, if not destroy, the benefits, and they are many, associated with private ownership. The Prince plan does not give even the benefits claimed for government ownership and operation, and I am wholly opposed to ownership and operation of the railroads by the government."

In closing Mr. Willard said he approved of the emergency railroad legislation but added that its emergency character should not be lost to sight; "it is emergency legislation," he said, "and not intended as a permanent part of our economic system." Also, he thought President Roosevelt had acted wisely in the selection of Joseph B. Eastman as co-ordinator.

Mr. Lapham, who spoke on "A Shipowner's Prob-

(*Continued on page 664*)

Commissioners Draft Bill for Control of Interstate Motor Transport

Discussion at convention of National Association at Cincinnati shows urgent need for prompt enactment of federal legislation

ABOUT 200 persons, including representatives of 29 state commissions, the Interstate Commerce Commission, the Public Service Commission of Porto Rico, and various public service companies, attended the forty-fifth annual convention of the National Association of Railroad and Utilities Commissioners, which was held at the Hotel Gibson, Cincinnati, Ohio, on October 10-13. The program was a full one but evidenced careful planning, "courtesy" addresses being confined to the opening session. However, the principal features of this session were the address of President H. Lester Hooker, member of the Virginia commission, and a paper by Chairman P. J. Farrell of the Interstate Commerce Commission, which was abstracted in the *Railway Age* of October 14, page 533. Each of the following sessions was devoted to the detailed consideration of an individual subject that was introduced by the presentation of one or more committee reports pertaining directly thereto. These subjects, in the order of their presentation, were: (1) Motor Carrier Regulation—To What Extent, if Any, Is Federal Regulation of Motor Vehicle Carriers Necessary in the Public Interest?; (2) Public Utility Rates; (3) Telephone Depreciation; (4) Holding Companies; (5) Valuation; and (6) Grade Crossing Elimination and Protection. Reports of standing committees not pertaining to these subjects were introduced as opportunity offered.

President Hooker's address was largely in the nature of an answer to the critics of state regulation, not a few of whom he contended were advocates of government ownership. One pertinent excerpt follows:

> If the criticism directed at the commissions was directed at the lack of powers which the commissions have, under the law, relating to rate making, much benefit might be had from it. It is certain that some method ought to be provided whereby, during prosperous times, utilities should be allowed to build up a larger reserve, or to set aside a special fund from excess earnings, which could not be used except on the written order of the commission, so that when a period of depression should occur, the commission could immediately order a rate reduction.

The result of the election of officers was as follows: President, Richard T. Higgins, chairman of the Connecticut Public Utilities Commission; first vice-president, Andrew R. McDonald, Wisconsin Public Service Commission; and second vice-president, Frank P. Morgan, Alabama Public Service Commission. James B. Walker, secretary, New York Transit Commission; John E. Benton, general solicitor, Washington, D. C.; and Clyde S. Bailey, assistant solicitor and assistant secretary, Washington D. C., were re-elected.

Joseph B. Eastman, federal co-ordinator of transportation, who was scheduled to speak before the convention on Tuesday afternoon, was unable to attend, but a letter received from him by President Hooker, setting forth the co-ordinator's views on phases of his duties under the Emergency Railroad Transportation act of 1933 in their relation to the work of the state commissions, was read into the record. This was abstracted in the *Railway Age* of October 14, page 536.

Again Urges Federal Motor Carrier Regulation

The program for Tuesday afternoon was devoted entirely to the discussion of federal regulation of highway transport, under the leadership of Andrew R. McDonald, member of the Wisconsin Public Service Commission, and chairman of the association's Committee on Legislation. Mr. McDonald presented a brief review of the protracted but as yet unsuccessful efforts of the association to secure legislation for federal regulation of interstate highway motor transport, citing the difficulties that beset the state commissions in their efforts to regulate intrastate traffic in the face of an entirely uncontrolled interstate traffic, and the yearly resolutions passed by the association in support of its officers and committees in promoting such legislation.

Robert H. Dunn, of the Michigan commission, represented the report of the Special Committee on Motor Vehicle Legislation, comprising a brief review of the efforts to advance a federal act during the past year and leading to the decision of the committee, acting jointly with the Committee on Legislation, to draft a new bill, which unfortunately could not be included in the administration's program for the special session of Congress. He was followed by K. F. Clardy, chairman of the Michigan commission, who presented by title the report of the Committee on Motor Vehicle Transportation in the absence of the chairman, E. O. Thompson of the Texas commission. Mr. Clardy then outlined the principal features of the proposed bill.

Association's Federal Regulation Bill

As briefly reviewed by Mr. Clardy, the bill is designed to provide for federal regulation of interstate bus and truck traffic, but is so drawn as to provide a minimum of interference with the state commissions in the exercise of their prerogatives in the regulation of intrastate traffic and to leave in their hands, also, complete control over the weight, dimensions, lighting and speeds of all motor vehicles, under their police powers, the effectiveness of which has been strengthened by recent decisions of the United States Supreme Court. With a view to forestalling any nullification of intrastate rates by the Interstate Commerce Commission, such as was made possible with respect to railway rates under the terms of the Transportation Act of 1920, the bill provides specifically, "that nothing in this Act shall empower the commission to prescribe, or in any manner regulate, the rate, fare, or charge for intrastate transportation or for any service connected therewith, for the purpose of

removing discrimination against interstate commerce or for any other purpose."

The bill also calls for administration through the agency of the state commissions on behalf of the Interstate Commerce Commission, by providing for hearings before joint boards composed of representatives of the commissions of the states involved in any proceeding, to be appointed by the Interstate Commerce Commission from nominations made by the state commissions. This procedure, however, is optional with the commission in case more than three states are involved.

In discussing the bill, Homer Hoch, chairman of the Kansas commission (who as a member of Congress was a joint author of the Hoch-Smith resolution), testified to the obstacles in the way of intrastate regulation when carriers and shippers within the state must compete with carriers and shippers operating across state lines. Commenting on the bill, he questioned the workability of the provision for hearings before joint boards, contending that it would require action by too many bodies and that the failure of the state commissions to function effectively under this feature of the act would serve to discredit them as an agency for the Interstate Commerce Commission. When asked by E. I. Lewis, director of valuation, I. C. C., what he had to offer as a substitute, he declared that there was no substitute for interstate regulation by the federal commission, but that perhaps it would be well to give the plan a trial. John E. Benton, general solicitor of the association, explained that the states may waive the right to participate as joint boards if they prefer not to function. Ivan Bowen, general counsel for the Greyhound Corporation, explained the regulatory features of the NRA code being prepared by the bus lines and expressed the opinion that the operation of the code would offer an advance test of the effect of federal regulation.

The only serious opposition to the proposed bill was voiced by C. J. Laurisch of Minnesota, and Floyd L. Bollen of Nebraska, who declared that if the Interstate Commerce Commission was granted authority to make interstate rates, it would thereby exercise jurisdiction over intrastate rates as it is now doing in the case of railway rates under the terms of the Transportation Act of 1920. Mr. Laurisch was particularly insistent that the bill would take authority away from the state commissions. In answer to this, Mr. McDonald said that the bill provided exclusively for interstate regulation and that the Supreme Court has held that this is outside the province of the states, following which Mr. Clardy read the limitations imposed on the I. C. C. as quoted above.

The discussion was closed with remarks by H. V. Hannah, chairman of the Tennessee commission, who declared that in spite of unalterable convictions with respect to the virtues of state rights, there was no alternative for a strong federal statute governing the regulation of interstate highway traffic, and that as between regulation by the Interstate Commerce Commission or regulation by "wild cat" operators, the former was certainly to be preferred. A motion that the association continue its efforts to secure the enactment of legislation along the lines discussed was carried unanimously.

Report on Railroad Rates

The report of the Committee on Railroad Rates, which was presented by Paul A. Walker, chairman of the Oklahoma commission, consisted in large part of passing comment on the developments of the last year, including a review of the trends of railway revenues and expenses and of the more important rate decisions. An interesting side light on highway transport competition is afforded in the following comment on the possible effect of the adoption of a code under the NRA by the truck operators:

> If the code, when adopted, is effective on all motor vehicle operators and results in a material increase in the present cost of transportation, then, of necessity, there must be an increase in the charges to the public and probably a lessening of competition of motor vehicle transportation with the rail carriers. Our railroad rate department has knowledge of many motor vehicle contracts which are made on a basis of approximately 5 cents per vehicle mile. When from this is deducted the Oklahoma highway tax of ½ cent per mile and the gasoline tax in Oklahoma, state and federal, of 5½ cents per gallon, equivalent at least to ½ cent per vehicle mile, there is left but 4 cents per mile for the vehicle operator with which to pay all costs of operation, including gasoline and oil, driver's salary, depreciation and interest upon investment. Assuming a truck operation of 200 miles per day, with a wage of $35 per week for truck drivers, there would be less than $13 left to pay all costs of operation, other than salary and mileage taxes, on the basis of 5 cents per vehicle mile.

The report also touched on the lack of expedition in the handling of rate cases:

> A crying need of rate making, especially during the recent years of distress, particularly in agriculture, is for more speedy and effective handling of cases. Litigation which is drawn out through years, when it might have been disposed of in a few weeks or months, tends to destroy confidence in rate regulation and rate regulating bodies, as well as to dishearten and discourage litigants. Inexcusable delays amount sometimes to denial, and not only provoke dissatisfaction but will ultimately destroy regulating commissions. Any effective plan of coordination must take into consideration and bring about some practicable method of shortening freight rate litigation. Nor does a demand for more prompt and efficient handling of rate cases overlook the able and conscientious work of rate regulating commissions. If undue delays are incident to the system as now established, then the system must be changed in keeping with the "new deal" and the trend of the times.

Discuss Grade Separation

The grade crossing problem was discussed in the report of the Committee on Safety of Operation, as well as that of the Committee on Railroad Grade Crossings, Elimination and Protection, and both urged that expenditures for grade separation be given a ranking consideration in the allocation of funds for public works under the National Industrial Recovery Act. The following is an excerpt from the report of the Grade Crossing committee on this subject:

> An examination of the National Industrial Recovery Act discloses that grade crossing eliminations are specifically mentioned in Section 204. The grant under that section is, however, to state highway departments, and in some of the states, at least, the jurisdiction over grade crossing elimination is vested in the regulatory commissions, so that in those states it is becoming increasingly evident that no help can be secured from that source, but that the money will be used under the regulations recently promulgated by the secretary of agriculture almost exclusively for highway construction.
>
> The suggestion has, therefore, been made that grants of money might be secured under Section 203, which in effect provides for the application of government aid for 30 per cent of the cost of materials and labor in the project, leaving the balance to be borne by the state and the railroads. The state of New York has passed an act to facilitate the use of such moneys and has appropriated $6,000,000 to meet the initial cost until reimbursed by the national government. It is understood that New Jersey has passed an act reducing the contributions of the railroads to the cost of the eliminations and that it has joined in the application to the national government.

This committee also published the tabulated replies to a questionnaire in regard to the status of practice in protecting grade crossings and in dividing the cost of protection and separation, from which the conclusion was reached that "there appears to be a tendency toward uniformity in the type of signal devices at grade crossings by adopting the recommendations of the Joint Committee on Grade Crossing Protection of the American

Railway Association." The committee also advocated the classification of crossings according to some formula, and offered a formula developed by the Connecticut commission as an illustration.

Advocates Cost Accounting

A report presented by the Committee on Statistics and Accounts of Railroad Companies, signed by L. R. Bitney of Minnesota, embodied a plea for changes in the accounting rules for steam railroads along the lines previously advocated by this committee. The report quoted in full the statement issued by Joseph B. Eastman, federal co-ordinator of transportation, relative to the general subject of cost accounting, which was reviewed in an article in the *Railway Age* of September 23, page 436. Some space was given also to the efforts made by representatives of the Interstate Commerce Commission and the state commissions to ascertain service cost levels segregated by rate zones, adding that, "Mention is made of these matters to indicate the necessity for more definite information as to the actual cost of service in the different rate territories of the country, to the end that excessive rates and charges on traffic local to one or more such territories may not be maintained at a level to offset losses incurred on through traffic, for which, under rate divisions in effect, the revenue assignment may be materially less than the actual cost of handling the traffic in question."

Valuation Today

"It is to be borne in mind that valuation today plays but a small part in the performance of the commission's principal function, rate making," was one of the observations made by the Committee on Valuation in its report to the convention. "This is in contrast to the period in which the Valuation act was enacted, when information as to railroad valuation was required in a considerable number of confiscation cases in court. Such cases now seldom arise. Rate making today depends more upon economic conditions, competition and other considerations."

The report of this committee consisted in large part of reviews and interpretations of valuation decisions rendered during the year by the courts and the state commissions. It also reviewed the fate of the recapture provisions of the Interstate Commerce act, adding that, "The repeal of the recapture provisions and the elimination of their companion provisions, the rate-making rule of Section 15a, may be regarded as a vindication of the position this association has taken concerning those matters ever since they were put on the statute books."

With respect to the alterations of Section 19 with regard to keeping valuations up to date, the report expressed its approval as follows:

> The amendment to the Valuation act herein referred to, however, puts an end to the costly undertaking of making new valuations of carrier properties in advance of the need for them. This legislation is largely due to the action of this association. At its convention in 1930 it passed a resolution asking for the legislation, in substance in the form in which it was finally enacted; and at congressional hearings representatives of the association were present to press its passage.

The report closed with a brief review of the current status of federal valuation, which was in part as follows:

> As has been stated in previous reports of this committee, the primary valuation of railroads included in the Interstate Commerce Commission's original program has been completed. In seven cases, however, final reports, though already adopted, yet remain to be released; they are now being printed and expected to be made public within a few months. Roads under lease and parts of a single system are included in a single report, and the seven reports mentioned cover 139 railroad corporations, embracing 72,285 miles of track, or 8 per cent of the total mileage of all carriers.
>
> The cost of federal valuation to the government up to June 30 of this year has been $46,302,331, which includes an unsegregated amount for valuation work incident to recapture of excess earnings under Section 15a. At congressional hearings to amend the Valuation act it was stated by carrier representatives that expenditures by the railroads aggregated almost $138,000,000. The commission's appropriation for valuation work, now that the Valuation act no longer requires revaluations "from time to time" and the recapture provisions of Section 15a have been repealed, has been greatly reduced. Its appropriation for the current fiscal year is $1,000,000, as compared with $2,750,000 for the previous fiscal year.

Railway Fire Losses Decrease

FIRE losses on the railways of the United States during 1932 were reduced to $5,018,930, as compared with $6,883,352, in 1931, $6,127,005 in 1930 and $4,376,345 in 1929 according to a report of the Committee on Statistics presented at the twentieth annual meeting of the Railway Fire Protection Association at Chicago on October 17-18. The program of the meeting over which W. F. Hickey, superintendent of insurance of the New York, New Haven & Hartford, presided, included, in addition to committee reports, a number of papers on specific topics. One of the subjects which came before the meeting was that of affiliating with the National Fire Protection Association or the American Railway Association. In view of the fact that the subject had already been taken up with the American Railway Association, no action was taken at this meeting. In accordance with a change made in the constitution last year, whereby the term of office for the officers was extended to two years, the present officers continue in office until next year. These include President Hickey; Vice-President W. H. Klinsick, fire prevention engineer of the Chicago, Burlington & Quincy; and Secretary-Treasurer R. R. Hackett, superintendent of insurance of the Baltimore & Ohio.

President Hickey, in addressing the convention, said in part: "The development of transportation has been so revolutionary during the past 10 years that many of our managements have called upon us for suggestions and recommendations pertaining to transportation by air, highway coach and truck, pipe lines and water. Since some railroads are now engaged in all such forms of transportation, many of us have been asked by our managements to advise as to aircraft and hangar protection and insurance such as crash, tornado, windstorm, fire, public liability, passenger liability and property damage; highway coach and truck protection, and insurance involving public liability, property damage, collision and fire, in addition to that covering rail and water transportation, so that instead of being called the Railway Fire Protection Association, I think a more comprehensive name would be The Transportation Protection Association. Since the railways undoubtedly have a great advantage over their competitors in that they have large properties and equipment and organizations for assembling and distributing traffic and operating various means of transportation, it is natural that all forms of transportation will look to the Railway Fire Protection Association for advice as to protection.

"It is evidence of the soundness and success of our work that the fire losses during the depression from which we are emerging have not increased, but rather have been reduced, whereas the experience of the in-

surance companies heretofore has been that during periods of depression fire losses on property in general have increased. One reason why the fire losses on railroads during the past years have been below the 10-year average is because of the momentum attained by our efforts in the past which carried us through despite some reductions in fire protection engineering personnel. That this momentum will carry on forever without increased efforts on the part of the railroads is too much to expect and, of course, those railroad managements whose necessity for economy has been so acute as to result in curtailment of the fire protection forces undoubtedly will replace their furloughed personnel at the earliest opportunity."

Statistical Report for 1932

According to the Committee on Statistics, 77 member railroads, including their subsidiaries and representing 257,787 miles of operated railroad, reported their losses for the year. This represents 99 per cent of the total mileage in the United States and is the most complete record ever made. On these roads, 6,177 fires were listed as causing a total loss of $5,018,930. Considering these totals in terms of mileage of road operated, one fire occurred for every 42 miles of road and for each single mile there was a loss of $19.47. The total loss figure, as estimated on a basis of the total membership mileage, is $5,104,430, a decrease of $1,919,854, as compared with the similar estimate for 1931. By far, the greater number of fires caused individual losses of less than $5,000. The two largest fires which occurred during the year each involved less than $500,000. The improvement in the fire record was due to better supervision, the maintenance of a high standard of order and cleanliness throughout railroad properties and a closer adherence to correct principles of fire resistive construction.

Outstanding in the list of causes of fire are "trespasser" and "incendiary". These two combined account for 1,434 fires and a loss of $1,264,517. The losses due to exposure to 621 outside fires amounted to $619,851, and without assuming any portion of the fires of unknown origin that might be classified in this group, it is apparent that the railroads suffered over one-third of their losses from hazards not definitely connected with railroad operation.

It is evident, says the report, that locomotives are still throwing sparks and dropping hot coals, for 656 fires were reported as causing losses of $148,976. These were 51 wrecks that caught fire and cost almost $500,000. A total of 394 fires were caused by smoking and matches, but the loss was only $86,458.

Rolling stock, including merchandise in transit, was involved in 50 per cent of the total number of fires, the loss being 39 per cent of the total. Box cars, as usual, lead all of the other classes of property, both rolling stock and fixed, in their liability to fire damage, as the report shows that 1,647 fires occurred, with a resulting loss of $1,104,536. One-half million dollars of this total resulted from the activities of the trespasser and incendiary and $250,000 from exposure. Wharves and docks were damaged to the amount of $708,147 in 61 fires. Passenger stations and freight houses combined produced 379 fires, costing $328,588.

Bridge Decks

In a paper on bridge decks, from the standpoint of the fire protection engineer, W. Steffens, fire protection engineer of the New York Central, gave as the causes for fires on bridges, lighted matches and smoking materials carelessly discarded, hot coals from locomotive ashpans, lighted signaling fusees dropped by train crews, and in the case of wooden structures with pile bents supporting the stringers, grass fires under or adjacent to the bridge attacking the supports of the structure. The susceptibility of timber to ignition from external sources," he said, "varies from a minimum in sound, hard specimens to the maximum in the softer varieties, especially when the surfaces have opened in cracks known as seasoning checks, in which moisture has collected and deteriorated the timber by the growth of spores producing decay. This immediately affords argument for some type of preservative treatment that will minimize the possibility for decay, both in the sap wood and in the season checks mentioned. It is obvious, therefore, that if season checks occur in individual ties and timbers of bridge decks after they are in place, a definite fire prevention step will be to fill these spaces with some form of asphaltic cement that will prevent further entrance of water and hinder further physical deterioration through decay."

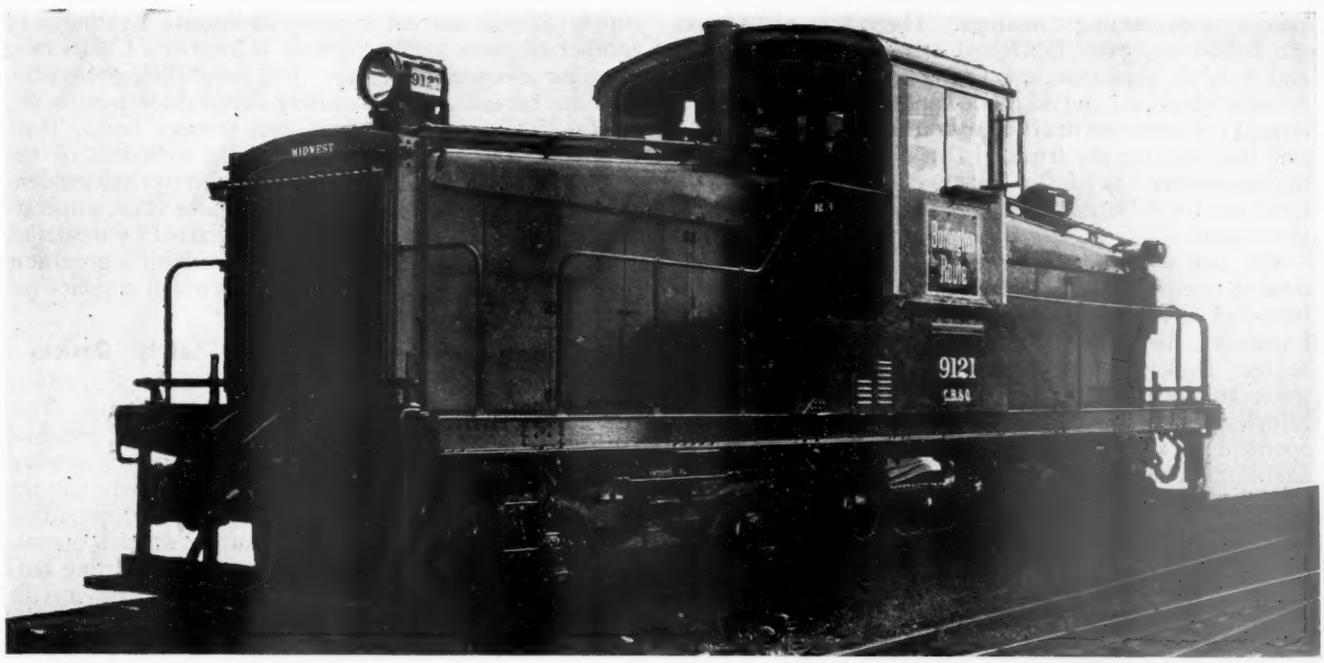
Mr. Steffens also discussed the problem of supplying first-aid extinguishing means at bridges for the protection of the decks. He also described an especially designed nozzle which can be lowered through the ties for extinguishing fires below the deck.

Fire prevention at railroad piers was discussed by DeWitt Rapalje of the Raritan River Railroad. In a discussion of this subject, attention was directed to piers with superstructures of fire-resistive construction supported on non-protected timber substructures vulnerable to the spread of fire and serious loss potentialities. It was felt that attention should be focused on the protection of the substructure, perhaps even before the superstructure, for fires in superstructures can be fought with the fire department apparatus available. The practice of the Pennsylvania in applying fire stops and water curtains to piers was described.

Snow melting oil and the handling of gasoline was presented by W. Steffens. He discussed methods of removing snow and ice, by mechanical means, and the application of heat. "Since the use of hydrocarbon oil resulting from the manufacture of Pintsch gas has been discontinued," he said, "casinghead gasoline has given excellent results. The storage and handling of supplies of this unusually volatile liquid merit special cautionary advice. Temporary storage prior to the season when it will be required should preferably be in underground tanks, installed in accordance with usual specifications and with openings protected with safety screens, the opening used for gaging purposes having a double safety screen extending to the bottom of the tank."

Mr. Steffens also discussed the unloading of gasoline, describing an aluminum dome cover which makes possible unloading with compressed air. With this method, the compressed air line is attached to a coupling in the cover and the liquid in the car is forced out through another coupling in the cover and into a pipe line. The gasoline and fumes do not come in contact with the air and the danger of ignition from sparks from passing locomotives, cigarettes, etc., is eliminated. In the discussion of handling gasoline, it was recommended that the contents of "leakers", cars from which gasoline is dropping, be sold immediately to local consumers instead of moving the cars into a yard or shop for repair or unloading.

Committee reports submitted at the meeting also included those on stations, freight depots and warehouses; classification and storage yards; freight car heaters and refrigerator cars; housing of employees; incinerators; shop plants; coaling stations; air compressors; and dust explosions in elevators.



Mid-West Diesel-Electric Locomotive Built for the Burlington

Diesel-Electric Switching Power for the Burlington

Three 65-ton, 460-hp. locomotives are designed for industrial switching or mixed-train branch-line service

EARLY this year the Chicago, Burlington & Quincy ordered from the Mid-West Locomotive Works, Hamilton, Ohio, three 65-ton, 460-hp. Diesel-electric switching locomotives, designed to develop a maximum tractive force of 40,000 lb., with an hourly rating of 14,600 lb., or a continuous rating of 11,600 lb. These locomotives, the first of which has just been delivered and placed on exhibition at A Century of Progress Exposition, Chicago, are notable for the use of Cummins light-weight high-speed Diesel driving engines, maximum tractive motor gear reduction for switching service and ample capacity for sustained operating speeds up to 50 m.p.h. in mixed-train branch-line service. Another novel feature is the fuel-injection system, which preheats the fuel before it passes into the combustion chamber, thus assuring unusually efficient operation. A fuel saving over equivalent steam operation of 38 per cent is estimated with these new Burlington Diesel-electric locomotives and a reduction of 45 per cent in maintenance costs.

The power for each locomotive is produced by two Cummins Model-KO, 4-cycle, Diesel engines, each having six cylinders with 7-in. bore and 9-in. stroke and developing 230 hp. at 1,000 r.p.m. The engines are cooled by means of belt-driven fans and Young sectional-core radiators mounted at each end of the locomotive. Each engine is directly connected to a General Electric d. c. electric generator through a flexible coupling. On the opposite end of each generator, a shaft extension fitted with a smaller flexible coupling provides a straight line drive for a Quincy two-cylinder, 64-cu. ft. capacity air compressor, equipped with Timken roller bearings. These two compressors supply air for brakes, control and operation of accessories and signals. Either compressor has ample capacity for these services in case only one engine is operating.

Each power plant, consisting of one Diesel engine, one electric generator and one air compressor, is mounted on a cast-steel base of rigid construction, thus minimizing the possibility of distortion or misalinement and

Fabricated Steel Frame and Method of Mounting the Dual Power Plants

failure of connecting couplings. The power plant bases are bolted to heavy fabricated steel frames of riveted and welded construction. These are the main frames forming the backbone of the locomotive and to them are riveted the cast-steel draft-gear housing, center plates and side bearings for the trucks. Draft gear at each end of the locomotive are of the Miner, 22-XB type, and with these are used National swivel-butt, top-operated, Type-D couplers.

The two swivel trucks are made up with Commonwealth, one-piece, cast-steel truck frames, Carnegie carbon-steel axles, Armco 36-in. rolled-steel wheels, and Fafnir-Melcher 5½-in. by 10-in. roller-bearing journal boxes. Brakes are applied to all four wheels of each truck through the use of American Steel Foundries Simplex, unit-cylinder, clasp brakes, these brakes being operated by two air cylinders mounted on each truck. Additional emergency hand braking on the rear truck is provided by means of Peacock staffless hand brakes. The spring suspension of the trucks consists of two semi-elliptic springs, the ends of these springs being carried between double equalizer bars mounted on top of the journal boxes. The truck bolsters are equipped with Stucki roller side bearings.

Each truck carries two series-wound traction motors of General Electric manufacture. Each motor is ventilated by a multiple fan mounted at the pinion end of the armature and provision is made for forced ventilation if it becomes desirable. The gearing is single reduction with a 65-tooth gear and 14-tooth pinion. Each electric power generator is of the General Electric, four-pole, direct-current, commutating-pole type. The combined effect of the shunt field winding of the generator and engine speed regulation results in a volt-ampere generator characteristic which closely follows the engine horsepower curve through a suitable range and permits full engine utilization over a wide range of locomotive speeds.

Electrical Control Features Provided

The control is General Electric Type-P which consists essentially of two master controllers, electro-pneumatically operated contactors and reverser, together with necessary auxiliary magnetic contactors and switches. The control provides for two operating positions, one at each end of the cab, and all operations of starting and stopping the engine, regulating the headlights and cab-lights, and controlling the direction and speed of the locomotive may be performed at either position. The control system is designed so that the two generators operate in parallel and provide a common source to which the traction motors are progressively connected in series-parallel, parallel-full-field and parallel-shunt-field combinations. Transfer from one motor combination to the next higher one is effected automatically and occurs at a point which will give the best locomotive performance. This feature, together with transfer contactors and resisters, prevents abuse of the electrical equipment. The operator may, if desired, limit the progression of motor combinations to a definite predetermined point and progression will automatically proceed to that point providing it is permitted by the automatic transfer equipment.

The cab of the locomotive is of the cupola type and space is provided under the floor for considerable equipment. This space is divided into several compartments, and access to each is had through doors at the sides and trap doors in the floor. In the larger of these spaces are located 32 cells of Exide Iron-Clad MVAH-17 batteries, arranged to provide 64-volt current for the engine-starting winding of the power generators and to supply 32-volt current for the locomotive lighting. In another of these subfloor spaces is located a Curtis two-stage air compressor, driven by a small Briggs-Stratton gasoline engine. This auxiliary compressor pumps air, up to 350-lb. pressure, into two storage tanks, from which the air is piped to each of the cylinders of the Diesel engines. This provides an entirely independent air-starting system controlled with a valve at each operating station. The compressor unit is started by means of a 6-volt starting motor and is equipped with a generator for charging a separate 6-volt battery which supplies the starting motor current.

Maximum Convenience—Visibility—Safety Devices

The operator's compartment of the locomotive cab is arranged for maximum convenience and visibility. Two operating stations are located at diagonally opposite corners, both stations being provided with upholstered drop seats and all control levers so arranged that the locomotive may be operated from a standing or sitting position. The control levers and buttons at each operating station consist of engine and generator starting buttons, engine throttle levers, control levers, Emeryville brake-valve pedestal connected to Westinghouse No. 6 ET air-brake system, engine starting air valves, auxiliary-compressor-engine starting and stopping buttons, Graham-White sander valve, bell ringer and horn valve, and switch box for the control of all lights. Each operating station is equipped with power and battery ammeters, fuel, air and lubricating oil gages for each individual unit.

Operating safety devices include deadman foot-pedal valves which apply the air brakes and cut off the power when pressure is released; an emergency fuel cut-off valve which cuts out the fuel supply to either engine pump; a pressure-operated switch which shuts off the auxiliary compressor engine at 350-lb. pressure; a Sangamo amp.-hr. meter which controls the charge to the storage batteries; Leslie Tyfon air horns; and hinged, clear-vision section windows equipped with Hays automatic air-operated window wipers.

With the maximum, hourly and continuous tractive force ratings mentioned, it is anticipated that these Diesel-electric locomotives will meet the requirements for switching service at many points on the Burlington lines. The first locomotive, which has just been delivered, will be broken in at Aurora, Ill., and then placed in industrial switching service at Lincoln, Neb.

Willard and Eastman Address Traffic Clubs

(*Continued from page 658*)

lems," was asked during the ensuing question period, what he thought of the proposed St. Lawrence seaway. He replied that he was able to give only an "offhand impression" which was to the effect that there is not the transportation need for the waterway that some people see. "If we are aiming to spend public funds, that's another thing," Mr. Lapham added.

In making his report for the committee on education and research, G. Lloyd Wilson, professor of commerce and transportation at the University of Pennsylvania also gave a brief talk on "Traffic and Transportation Education and Promotion in Great Britain." Mr. Wilson's report stated that his committee had been authorized to issue a series of publications during the next six months as a first experiment in distributing educational programs and suggestions.

Annual Meeting of Safety Section, A. R. A., Held at Chicago

Uniformity in the reporting of accidents considered—Reasonable casualty rates as measure of performance suggested

DEFINITIONS and interpretations of terms and expressions appearing in the rules governing the monthly reports of railway accidents to bring about uniformity among the railways in reporting accidents and the establishment of a reasonable casualty rate, which will be a measure of safety performance in the departments and for the railways as a whole, were the subjects given most consideration at the thirteenth annual meeting of the Safety section of the American Railway Association, which has been merged with the Steam Railroad section of the National Safety Council, at the Stevens Hotel, Chicago, on October 3-5, in conjunction with the annual Safety Congress of the council. The meeting, over which Chairman Charles E. Hill, general safety agent of the New York Central Lines, presided, was attended by approximately 700 representatives of the railroads and was devoted to the consideration of numerous addresses, papers and committee reports.

Officers elected for the ensuing year are as follows: Chairman, C. L. LaFountaine, general safety supervisor of the Great Northern; first vice-chairman, H. A. Parish, assistant to the general manager of the Chicago & North Western; second vice-chairman, W. H. Failing, claims attorney of the Central of New Jersey; and secretary, (re-elected) J. C. Caviston.

Reporting Casualties to the I. C. C.

Methods used by various railroads in reporting casualties to the Interstate Commerce Commission, which have been under scrutiny for some time because of the low casualty rates prevailing on some roads in contrast to higher ones on other roads, were given serious consideration in a report by the committee on The Proper Methods of Reporting Casualties to the Interstate Commerce Commission and in an address on The Necessity of Uniformity in Reporting Accidents by Dr. M. O. Lorenz, director of the Bureau of Statistics of the commission. The report of the committee, which was presented by G. H. Warfel, assistant to the executive vice-president of the Union Pacific, consisted of definitions and interpretations of terms and expressions appearing in Paragraph 2 of the rules governing the monthly reports of railway accidents, revised in 1922, and are intended to clarify the rules so that all railroads will report casualties on the same basis. While the report of the committee is tentative, much of it has been approved by the Interstate Commerce Commission.

According to the committee, the phrase "sufficient to incapacitate" is interpreted as meaning sufficient to prevent a person from doing his usual work by reason of possible future consequences or because of pain or limitation of motion or of function, whether such pain or limitation results from the injury or from the bandaging or treatment.

The phrase "performing his ordinary duties" is interpreted as meaning performing fully and acceptably and without extra assistance all the duties customarily included in a regular assignment to one of his title, payroll classification and pay rate. Generally speaking, the report continues, any injury, which, if it occurred off duty, would be regarded as necessarily incapacitating an employee from performing his regular work, should be likewise considered as incapacitating him when the accident occurs on duty. Excepting only those persons whose entire duties consist of desk work or office supervision, no employee should be considered able to perform his ordinary duties if he has his foot or leg in a cast or splint, his hand or arm in a cast, splint or sling, or has to use crutches or be assisted in getting about. Persons whose ordinary duties consist of manual work must have use of both hands and if required to move about, must have use of both feet. They must be able to turn out a customarily acceptable amount of work. The best and most acceptable evidence that a person is able to perform his ordinary duties consists in continuing to do his usual work in performing those duties throughout his regular working periods without disability amounting to more than 3 days during the 10 days following an injury. Failure to resume work must be regarded as evidence that he is unable to do so unless, in the opinion of a surgeon designated by the railroad, the injured person is actually able to perform his ordinary duties without seriously jeopardizing his recovery and is merely malingering.

In computing the period of incapacitation to determine whether or not it exceeds three days, the report states: "It must be borne in mind that the times and periods to be included in the computation of the total term of disability are only the periods during which the injured person is actually incapacitated by his injury. The period from the moment of injury or beginning of disability to the time when the attending surgeon releases the injured person must be counted as time incapacitated, but if he is required to return daily or every other day for inspection and redressing, such periods of absence for that purpose should not be counted as periods of incapacitation, for the time so lost is not due to incapacitation but is required only for inspection and dressing. Such absences, however, must be restricted to the minimum time necessary to go to and return from the surgeon's office, and in no case should it include a major portion of his regular turn, shift or tour of duty. In other words, under no circumstances may the injured person be allowed to absent himself from his regular work a major part of the time on pretense that such absence is required to obtain surgical dressing and inspection."

The expression "to be reported," according to the report, refers to the reporting of an accident to the Interstate Commerce Commission. Reportability is to be determined by the officer of the railroad designated to prepare and render such reports under oath. If he is in doubt as to the propriety of his decision in any instance, he should present the full facts and circum-

stances by letter to the director of the Bureau of Statistics of the Interstate Commerce Commission with a request for a ruling. The report also defined and interpreted other phrases appearing in the rules.

Uniformity in Reporting Accidents

Dr. Lorenz discussed the necessity of uniformity in reporting accidents, referring specifically to the variation in the records of the various railroads. A study of several Class I railroads showed that on a comparison of casualty rates the best railroad in the group had a rate of 1.10, while the worst had a rate of 12.71, or 10 times as bad. By assigning a severity factor to the various causes, for example, 6,000 days per 1,000,000 man-hours for a death, loss of an eye or permanent disability, 3,600 days per 1,000,000 man-hours for the loss of an arm or a hand, etc., the record of the best road showed a severity rate of 680 days, while that of the worst road showed a severity rate of 1,950 days, or 3 times as bad. He contended that a comparison of railroads on the basis of casualty rates was not entirely accurate, since the methods of reporting accidents are far from uniform, and that the comparison on the basis of severity rates gave a truer picture.

A Reasonable Casualty Rate

The establishment of a reasonable casualty rate or ratio of casualties to work performed, which will serve as a guide to the efficiency of the various departments of the railroad and at the same time set a goal for the departments and the railroad, was made by T. H. Carrow, superintendent of safety of the Pennsylvania, and chairman of the Committee on Statistics, in that committee's report as a supplement to the slogan, "33 x 33," which is a goal calling for a 33 per cent reduction of accidents by the end of 1933. In presenting this suggestion, Mr. Carrow contended that there is a normal casualty rate that will occur in each of the classes of employees and that if this rate is fixed for each class, that there will be a decided improvement in the casualties to employees. He urged the members to forget about a general reduction and dwell upon the possibility of each department establishing a rate that is reasonable.

His proposal was referred to the Committee of Direction with the suggestion that the employee casualty rate to be attained by each railroad before January 1, 1940 be as follows: Maintenance of way department, less than 3 per 1,000,000 man-hours; maintenance of equipment department, less than 3 per 1,000,000 man-hours; train and engine employees, less than 8 per 1,000,000 man-hours; and the total for all departments, less than 4 per 1,000,000 man-hours. These suggested casualty rates were based upon the opinion that the casualty rates of 15 railroads studied, that is, 8.24 for maintenance of way employees, 7.21 for maintenance of equipment employees, 15.50 for train and engine employees and 7.38 for all departments, could be reduced substantially. The Committee of Direction will study the subject and determine reasonable rates.

F. E. Williamson Addresses Meeting

F. E. Williamson, president of the New York Central Lines, M. J. Gormley, president of the American Railway Association, and C. E. Hill, general safety agent of the New York Central Lines, were the principal speakers. Mr. Williamson urged economic safety for the railroads, obtainable by protection from the competition of other carriers partially supported by general taxes to which they contribute little. He gave a large measure of confidence to Joseph B. Eastman, federal co-ordinator, and recognized the wisdom of President Roosevelt's choice. In his discussion of safety, he said, "Perhaps because of the unhappy circumstance that good news has not the same publicity importance as bad news, one isolated railroad accident will give front page headlines, whereas the safe operation of millions of passenger-miles day in and day out will go unnoticed and unheralded. There is little news value in that which is commonplace. As a matter of fact, there is a subtle compliment to our safe transportation service that is impiled in that public psychology. Accidents on the highways do not rate nearly the publicity space and prominence that railroad accidents do, undoubtedly because they are all too frequent."

In discussing duplicate transportation facilities, he said, "It is difficult for us to see the economic propriety of overbuilding at the taxpayers' expense, duplicate and triplicate transportation facilities, with the inevitable result of creating a situation where all will become superadequate and the public at large be required to maintain and support dead weight. We seem to have lost sight of the downright fallacy of expecting the railroads, which must earn in order to serve, to survive in competition with the federal and state treasuries, which need only to tax in order to give. Our country is so large and we thought that it had grown so rich that many of our public officers had come to assume that the capacity to pay taxes was as exhaustless as was their legal power to impose them. Just now, there is a belated awakening to the serious fact that the saturation point has been reached, and over-reached. That the railroads are not unreasonable in their protest against the crushing burden of taxation should be evident when it is appreciated that the railroads paid in taxes over three-quarters of a million dollars every day in the year 1932, which was equivalent to about nine cents out of every dollar of gross receipts."

Mr. Gormley discussed the decrease in the number of cars owned by the railroads since 1920 and the increase in the number of freight trains operated since 1920 and their relation to safety. The improvement in railroad operation which has made possible the retirement of 1,091,000 cars and the addition of only 900,000, he said, had marked effect upon safety, since the fewer number of cars owned has reduced the possibility for accidents.

Mr. Hill said, "Due to organized safety on the railroads of the country, nearly 1,000,000 employees have been saved from death or injury in the past 19 years. Including their dependents, this saving in casualties among railroad employees represents a number equal to or greater than the entire population of Chicago. Surely this great army of railway workers, who help to make up the best citizenship of our country, stands as a living monument to organized safety and its aggressive leadership. Our efforts to promote safety have not been confined solely to railway employees, but they have also extended to the public. As a result, passenger fatalities have been reduced from 350 in 1913 to 28 in 1932, a decrease on the basis of the number of passengers carried of 86.1 per cent. Of the 28 passengers killed in 1932, only 1 was due to train accidents (collisions and derailments), the remaining 27 being due to causes over which the railroads had little, if any, control. This accomplishment stands without parallel in the annals of safe transportation and justifies the statement that the safest place you can be today is when traveling as a passenger on a railroad train.

"Of the total decrease since 1913 in the number of casualties among employees, 77 per cent was made in the nine-year period from 1924 to 1932, inclusive, and only 23 per cent during the preceding 10 years. This substantial improvement during the second decade of

organized safety was due to an aroused interest on the part of railroad officers and employees, plus a more methodical application of our safety work. We are still having accidental deaths and injuries to employees in such volume and through such inexcusable causes that they stand as a further challenge to railway managements. Therefore, they not only warrant our increased efforts, but a greater concentration of such efforts in the application of the well-known specific remedies that will serve ultimately to result in a complete abolition of preventable accidents."

Highway Grade Crossing Accidents

A report made by H. A. Rowe, manager of the claims department of the Delaware, Lackawanna & Western and chairman of the Committee on The Prevention of Highway Crossing Accidents, showed that fewer persons lost their lives in 1932 as a result of accidents at railroad highway grade crossings than in any year since 1915, fatalities resulting from such accidents totaling 1,525 in 1932 which represented 1 fatality for every 15,405 automobiles registered, and 1,811 in 1931, or 1 for every 14,254 automobiles registered in that year. Reports covering the first six months of 1933, according to Mr. Rowe, showed a reduction compared with the corresponding period of 1932 in the number of accidents and casualties which would indicate that there will be continued improvement in grade crossing safety during the year.

Accidents to Trespassers

The growing number of accidents to trespassers, for the most part itinerant unemployed who are riding on the trains of this country, provides a serious problem from a safety standpoint for the railroads of the United States, according to a report made by D. G. Phillips, superintendent of safety of the Wabash and chairman of the Committee on Train Service Accidents. "While fatalities to non-trespassers," he said, "were reduced between 1929 and 1932 by nearly 47 per cent, fatalities to trespassers increased by nearly 9 per cent. Of the total number of persons who lose their lives on railroad property each year, including those killed as a result of grade crossing accidents, those classified as trespassers totaled more than 50 per cent in 1932.

"Some of these trespassers seem to think that the railroads owe them a duty in regard to fixed structures. There is one railroad that is being sued by a trespasser who was struck by an overhead bridge, claiming that a trainman knew he was on the train and it was the duty of that trainman to have warned this trespasser that a certain bridge would not clear a man standing on the top of a car. There were probably 80 trespassers on the train and if the trainman had gone around and cautioned every man every time there was a non-clearance point, he would have done little else."

This report was amplified by an address by T. E. Pratt, chief special agent and superintendent of safety of the Chicago, Burlington & Quincy. According to Mr. Pratt, 500,000 trespassers, 90 per cent of whom are under the age of 25, are using railroad trains as a means of transportation in their aimless wanderings over the United States. "The railroad trespass evil," said Mr. Pratt, "is one of the most important subjects confronting the railroads at the present time. It not only affects railroads, but society as a whole, and is a condition which is growing to such an extent each day that it is necessary not only for this section or the Protective section, but all sections of the American Railway Association, to give the matter serious consideration with a view of informing the public as to just how destructive it is for society and particularly the youth of our country.

"These 500,000 trespassers are traveling without any destination or purpose and communities are compelled to feed and keep them moving. Men, women and children are now traveling via the hobo route. For instance, a man and his wife with a three weeks old baby in a basket were recently found on top of a refrigerator car on one of the southern railroads. In another instance, a mother and father placed their two children, six and seven years old respectively, in a box car to send them to another city where they had relatives. Thousands of young men who have been out of work and who come from good families are traveling over the country in this way, mingling with the hoboes in their camps and listening to the conversations of the very worst type of men. Railroad police have found that the professional hobo does not resent being ejected from a train but the new class of itinerant wanderer is very resentful and railroads have suffered on account of the latter class demonstrating their displeasure by placing obstructions on tracks and doing other things which result in damage to railroad property.

"It is not uncommon to see a freight train on which are as many as 150 of these wanderers. When a derailment occurs, many are injured or killed and oftentimes their identities are never known."

Train Accidents

The report of the Committee on Train Accidents, presented by Chairman G. H. Warfel, showed that in 1932 there were 5,770 train accidents that resulted in $7,303,037 in damage to railway property alone. Of the 1,265 collisions included in this figure, 114 were head-on or rear-end collisions between trains, 112 were side or raking collisions and 10 were collisions at crossings with other railroads, while the remaining 1,029 collisions occurred in yard switching and similar operations. Sixty-three collisions involved passenger trains. The principal causes were: Disregarding fixed signals, disregarding or misunderstanding hand signals, failure to secure hand brakes, leaving switches set wrong, failure to comply with speed restrictions, improper handling of locomotives and failure to keep a proper lookout.

The report also shows that there were 3,321 derailments of all kinds in 1932, of which 322 occurred to passenger trains. Exactly half of the total, or 1,663, are charged to defects in or failures of equipment and defects in or improper maintenance of way and structures. Only 524 of the derailments are attributed to negligence of employees. "However," the report continues, "when we find the principal items in defects and failures of equipment listed as arch bar breaks and failures, overheated wheels, burned journals, brake rigging down, etc., it is evident that many of these could and should have been detected or remedied by closer mechanical inspection and greater watchfulness of train crews while enroute. About one-third of the derailments due to defects in way and structures are accounted for by broken rails, but the remaining two-thirds, divided among defects in frogs and switches and other defective track conditions, indicate that in a majority of cases closer inspection should have discovered the hazard and have removed or protected it. It is notable that only two derailments involved defective conditions of bridges, trestles, culverts or tunnels."

The accidents grouped under Locomotive and Miscellaneous Accidents include nine locomotive boiler accidents, of which eight were crown sheet explosions, all charged to negligence of employees. Five hundred twenty-five other locomotive accidents are ascribed to defects in or failures of equipment. Two-thirds of this number consist of defects or breaks in main or side

rods, crank pins, pistons and cylinders, and guides. Tires, axles and journals account for the remainder.

Non-Train Accidents

The report of the Committee on Non-Train Accidents, presented by Chairman C. F. Larson, superintendent of safety of the Missouri Pacific, contended that the principal effort against non-train accidents should be carried on in the maintenance of way and equipment departments, since they produce 75 per cent of the total industrial accidents and because 95 per cent of these accidents in these departments are non-train. Continuing, the report shows that 38 per cent of the accidents occurred in the maintenance of way department, the total casualties being 4,965, while 37 per cent occurred in the mechanical and stores departments, the total casualties being 4,733. The six principal proximate causes for these particular casualties, the report showed, were as follows: 2,103, falls of persons; 1,878, handling rails, ties, bridge timbers, etc.; 1,579, handling freight or supplies; 1,476, use of hand tools; 1,466, falls of objects; 825, motor cars.

Of the 26 occupations listed in the maintenance of way and structures department, 11 had casualty rates above the average of 8.52. Three of the 11, however, show fewer than 24 accidents per year in the entire country and are, therefore, negligible in the analysis, leaving 8 principal occupational casualty producers, listed in the order of their injury productiveness, with specific casualty rates as follows:

	Casualty Rate
2,762 Track and Roadway Section Laborers	8.77
702 Extra Gang and Work Train Laborers	11.31
539 Bridge and Building Carpenters	16.97
179 Laborers other than Track or Roadway	15.09
163 Skilled Trades Helpers	11.58
94 Linemen and Groundmen	16.92
49 Bridge and Building Iron Workers	23.20
49 Bridge and Building Painters	16.56

Of the 29 occupations listed in the maintenance of equipment and stores department, 13 had casualty rates above the average of 6.59 which applies to this general class. Four of the 13 producing fewer than 24 each for the year in the entire country have been omitted, which leaves the following 9 occupations or sub-classes in maintenance of equipment and stores:

	Casualty Rate
780 Machinists	8.49
642 Laborers, Shops, Engine House, Power Plants	8.55
523 Common Laborers, Shops, Engine House, Power Plants	6.49
288 Carmen A	10.44
222 Boilermakers	8.72
110 Regular Apprentices	9.38
73 Blacksmiths	7.06
56 Carmen B	11.36
41 Helper Apprentices	8.52

Other Subjects Discussed

The remainder of the program included a number of papers on subjects pertaining to safety. The operation of hand brakes was discussed by Fred Brastrup, superintendent of the Northern Pacific, who cited several points that are essential in the hand brake, namely, (1) a brake that can be applied and released with one hand, (2) a brake that can be applied quickly with one hand, with such small effort that the operator's mind and body are free to observe and act promptly in emergency, (3) instantaneous release by use of one hand only, and (4) graduated release for permitting a car to drift with the use of one hand only controlling the brake, thus permitting a train or yardman to maintain positive control of the car's movement with a minimum effort and with safety to himself. Some of the things to be guarded against in connection with the operation of hand brakes, according to Mr. Brastrup, are (1) do not permit the use of a make-shift brake club, (2) the importance and necessity of securing every car left standing on a heavy grade at way stations and at isolated points, and (3) in controlling the speed of several cars that are being kicked or switched over a hump in a yard or on heavy grades, the operator should not depend on one hand brake to control a greater number of cars than may be fully retarded with that amount of braking power.

The operation of air brakes was discussed by Mark Purcell, general air brake inspector of the Northern Pacific, who gave a history of the air brake and described its mechanical operation.

Accidents regarding train employees were discussed by E. A. Meyer, manager of the safety and fuel departments of the Chicago, Milwaukee, St. Paul & Pacific, who analyzed their causes and suggested remedies for prevention.

Getting on and off Cars was discussed by J. D. Sullivan, yardmaster of the Chicago, Rock Island & Pacific, who outlined specific instructions for the movement of the body, hands, feet, etc., when getting on and off cars.

In a paper on the inspection of trains in yards and enroute, A. A. Lowe, supervisor of transportation of the Southern Pacific, described that railroad's method of train inspection. "Our records," he said, "show we are remarkably free of accidents because of the quality of our train inspection but at the same time, both carmen and trainmen, including the enginemen, render a good account of themselves in detecting trouble at its inception and taking necessary action to prevent serious results. During the first seven months of this year, we made 315,000,000 freight car-miles and 60,000,000 passenger car-miles, or a total of 375,000,000 car-miles, during which the record of train accidents in any way traceable to the failure of carmen or trainmen to inspect equipment properly or to place cars in a safe condition to complete the trip after defects were discovered is as follows: Two cases of journals burned off, 1 case of steam shovel not properly loaded and shifted enroute, 3 cases of brake beams down, 1 case of bottom rod dropping, 1 case of arch bar failing at old defect, 5 cases of wheels broken because of overheating and 1 case of a car being derailed and entering a siding because of a vertical flange. This represents a total of 14 cases in seven months, or an average of 26,785,000 car-miles ru per reportable defect which employees failed to detect or properly care for."

According to F. P. Gutelius, Jr., division engineer of the Delaware & Hudson, "to find the solution to safe motor car operation, we must first look to ourselves as supervisory officers and after we ourselves are thoroughly convinced that it is unnecessary to take risks in operating these cars, we have then placed ourselves in the proper frame of mind to argue convincingly and instruct those whose daily operations require motor car movements on main tracks. After the supervisory forces have recognized the importance of safe motor car operation, the next step is a matter of educating their subordinates. To understand intelligently and place in operation the intent of the rules found in the American Railway Engineering Association Manual, a man must, of necessity, have at least a grade school education and a mechanical turn of mind. I believe the position of a motor car operator should be established and that this man should be held entirely responsible for the movements of this car over his territory. The position could carry some slightly increased compensation over the hourly rate established for the track or laborer in the gang, and incidentally, this position would relieve the foreman or assistant foreman of the time each has been in the habit of devoting to maintaining the running gear of their car which, of course, detracts from the supervision of the gang."

The handling of rails and ties was discussed by John

W. Sims, track supervisor of the Illinois Central, who specified the manner in which these products should be handled to avoid accidents. He recommended the use of three or four men to slide ties over the side of a coal car and two men to handle ties in box cars.

W. O. LeBer, safety inspector of the Canadian National, in discussing the safe use of machinery and tools, emphasized the need for the purchase of high-grade products. He also showed how the improper tempering of tools, cheap handles, tools not suited to a particular type of work and the misuse of tools are responsible for a large number of accidents. "The majority of accidents from machine tools," he said, "are not due to carelessness but to cheap tools, improper tempering, defective tools, etc."

Other papers presented included the following: How to Establish and Maintain Safety in the Shops, by T. W. Demarest, general superintendent of motive power of the Pennsylvania; The Supervisor's Responsibility, by H. S. Corbin, supervisor of safety of the Atlantic Coast Line; The Goggle Rule and How Enforced, by J. C. Yocum, manager of safety department of the Chicago, St. Paul, Minneapolis & Omaha; The Green Book, by Lew R. Palmer, conservation engineer of the Equitable Life Assurance Society; Freight House Accidents —Their Cause and Remedy, by L. B. Hine, agent of the Erie; The Car Department's Responsibility in Accident Prevention, by W. E. Dunham, superintendent of the car department of the Chicago & North Western; Maintenance of Way Accidents—Their Cause and Remedy, by G. C. Wendling, division engineer of the Louisville & Nashville; Specific Remedy for Avoiding Foot Accidents, by O. F. Johnson, superintendent of safety of the Minneapolis & St. Louis; and Handling Material and Supplies, by F. W. Curtis, supervisor of safety and fire prevention of the Denver & Rio Grande Western.

Freight Car Loading

WASHINGTON, D. C.

REVENUE freight car loading in the week ended October 21 amounted to 650,482 cars, a decrease of 13,576 cars under the total for the preceding week but an increase of 8,497 cars, or 1.3 per cent, as compared with the corresponding week of last year. As compared with 1931 there was a decrease of 119,191 cars. All commodity classifications except l. c. l. merchandise showed decreases as compared with the week before but miscellaneous freight, forest products, ore and coke showed increases as compared with last year. The Allegheny and Northwestern were the only districts to show increases as compared with last year. The summary, as compiled by the Car Service Division of the American Railway Association, follows:

Revenue Freight Car Loading

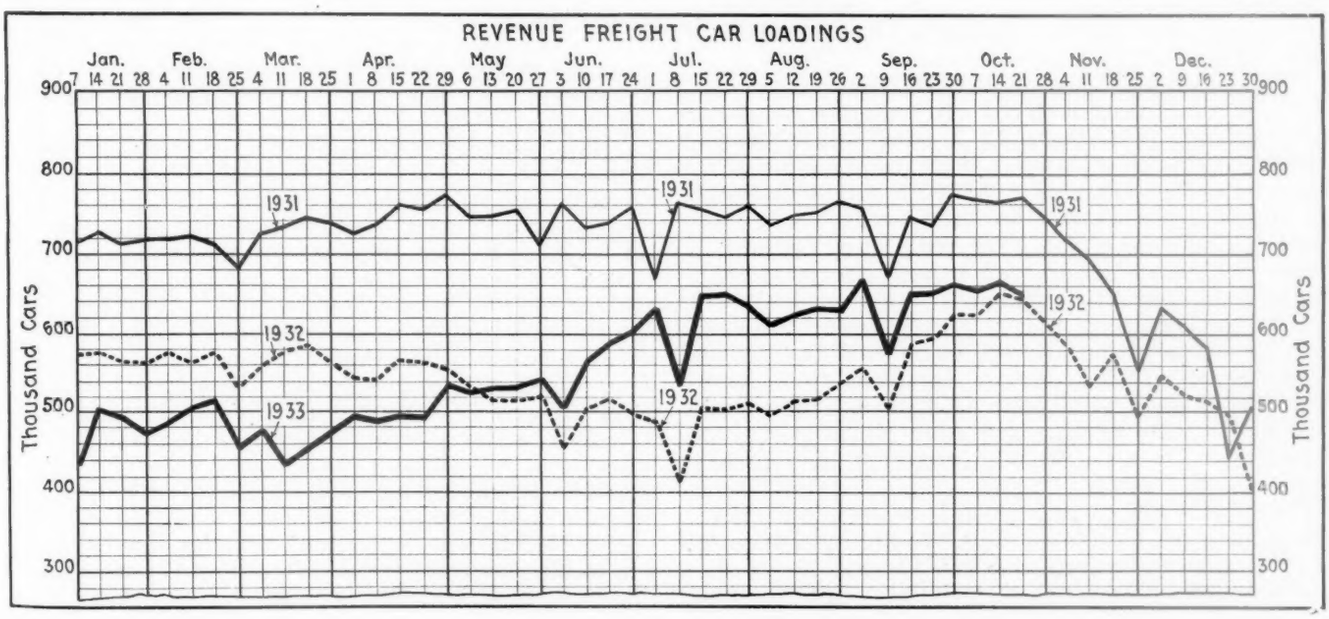
Week ended Saturday, October 21, 1933

Districts	1933	1932	1931
Eastern	139,131	139,522	170,961
Allegheny	123,329	112,911	149,949
Pocahontas	45,936	47,594	51,137
Southern	88,742	92,123	109,436
Northwestern	89,889	76,355	97,334
Central Western	109,100	112,438	124,248
Southwestern	54,355	61,042	66,608
Total Western Districts	253,344	249,835	288,190
Total All Roads	650,482	641,985	769,673
Commodities			
Grain and Grain Products	28,496	33,046	40,163
Live Stock	23,691	23,726	30,735
Coal	128,317	140,743	152,821
Coke	6,453	4,831	5,733
Forest Products	24,117	18,572	23,822
Ore	26,815	6,326	16,924
Mdse. L. C. L.	173,090	178,423	214,712
Miscellaneous	239,503	236,318	284,763
October 21	650,482	641,985	769,673
October 14	664,058	649,690	761,596
October 7	654,428	625,089	763,818
September 30	661,827	621,658	777,712
September 23	652,669	595,604	738,036
Cumulative total, 42 weeks	23,392,690	22,889,456	31,016,794

Car Loading in Canada

Car loadings in Canada in the week ended October 21 totaled 51,705. This was an increase of 1,402 cars over the previous week which contained a holiday and an increase of 1,830 cars over the corresponding week last year.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
October 21, 1933	51,705	18,873
October 14, 1933	50,303	18,402
October 7, 1933	53,198	19,745
October 22, 1932	49,875	18,935
Cumulative Totals for Canada:		
October 21, 1933	1,606,813	772,844
October 22, 1932	1,776,303	798,930
October 17, 1931	2,059,326	1,067,846



Compromise Reached on Rail Price

Companies accept President's proposal of $36.375 per ton after Eastman had charged collusion on $37.75 quotation

WASHINGTON, D. C.

A COMPROMISE price of $36.375 a ton for steel rails for 844,525 tons or more which the railroads had tentatively agreed to buy, contingent upon a reduced price, largely with funds to be loaned by the government, was accepted by the executives of the four principal rail manufacturers at a White House conference on Monday, October 30, after success of the government's plan for stimulating employment in the steel mills and in railroad maintenance work had appeared to be threatened by a price controversy.

Compromise Proposed by President

The compromise was proposed by President Roosevelt as a splitting of the difference between the $37.75 price bid by the steel companies and the $35 insisted upon by Co-ordinator Eastman, who had earlier rejected the bids, with the approval of the President, charging the companies with "prior consultation and collusion" in naming the price because all of the companies had notified him on the same day of uniform prices which had previously been filed with the American Iron & Steel Institute under the provisions of the N. R. A. code. After two conferences with the President at the White House last week Mr. Eastman on October 27 had advised the steel company executives that the government was unwilling to loan money to the railroads at the quoted price and proposed that it be reduced to the $35 figure which he had previously suggested as a maximum, unless they would agree to accept a price found by the President to be fair after an examination of their books and cost records.

On Monday, however, when officers of the various steel companies were at the White House to discuss labor questions which had been in controversy in connection with coal mines owned by the steel companies, Mr. Eastman was called into the conference. A statement was later issued from the White House saying that the steel manufacturers had explained that the recent offer of all four companies to supply rails at the uniform price of $37.75 was based on the following understanding by them of the steel code provisions:

"The United States Steel Corporation states that, without consultation with the other manufacturers and in conformity with the code, it notified the Iron and Steel Institute that it proposed to reduce its price for steel rails from $40 a ton to $37.75 a ton. This notice, having been given to the institute, became public property, and thereupon the other three manufacturers of steel rails reduced their price to meet the price established by the Steel Corporation.

"At the conference today," the statement continued, "the steel rail manufacturers maintained the position that the price of $37.75 per ton represented to them only the cost of production plus a fair profit. The co-ordinator of transportation stated again his belief that not more than $35 a ton would represent a fair purchase price.

"In the interest of getting people to work in the heavy industry of producing steel rails, the President proposed a price halfway between, or $36.375 a ton.

"This price was accepted, and the co-ordinator will advise the Administrator of Public Works of this decision and of the actual tonnage needs of the various railroads."

A conference on details of the handling of the proposed loans was held on October 31 by Co-ordinator Eastman, H. M. Waite, deputy administrator of the Public Works Administration; C. D. Mahaffie, of the Interstate Commerce Commission, and R. V. Fletcher, general counsel of the Association of Railway Executives. A new canvass is being made of the railroads that had made tentative commitments for rail to ascertain their position now that the price has been fixed, because some of them had based their commitments on a price as low as $35, which, it is understood, had been suggested as possible from government sources.

Eastman in First Controversy

Mr. Eastman's disappointment because the steel companies, having met a cut made by one company, did not continue to bid against each other, caused him to become engaged in his first controversy since assuming the office of co-ordinator in June.

The uniform price of $37.75 per gross ton, f. o. b. mill, for first quality rail had been quoted to Mr. Eastman on October 20 by the United States Steel Corporation, the Bethlehem Steel Company, Inc., the Inland Steel Company, and the Colorado Steel & Iron Company, in letters replying to his of October 3 asking them to submit competitive bids for 844,525 tons, in which they stated that lists naming this price and corresponding prices for other grades had been filed with the American Iron & Steel Institute, effective October 30. In making public the correspondence on October 28, including his reply to the steel companies, Mr. Eastman issued a statement saying that the letters and prices submitted "bear unmistakable evidence of prior consultation and collusion, and absence of competition" and that in view of the circumstances and of the past history of steel prices, and what is known about them, he was authorized by the President to say that "the government is unwilling to loan money to the railroads for the purchase of rails, without some safeguard to the consumer and the public interest as a substitute for the competition which is absent."

The government is willing to loan the necessary funds without such an examination, he said, if the price is reduced to $35. If the steel companies will not make this concession, the government will make the loans only if the steel companies refile the new prices under the N.R.A. Code accompanied by a stipulation that if the President, after government accountants have had full and free opportunity to examine the books and cost records, finds that the prices should be reduced to make them fair, then the reduced prices so named by him shall be effective to the same extent and from the same date as if they had been originally filed. In the meantime the government will advance funds on the basis of a price of $35, adjustments up or down to be made later in accord with the President's finding.

The 844,525 tons represented tentative commitments sent to Mr. Eastman by some fifty railroad systems, contingent in most instances on a substantial reduction in

price, and as to about half the tonnage on loans from the Public Works Administration at 4 per cent interest on ten-year notes. Some of the roads had specified a maximum price of $35 a ton, although the Pennsylvania, which indicated a desire to place its own orders, did not stipulate any reduction in price, and the Norfolk & Western, which was down on the list for 10,000 tons, has already placed its own order. Mr. Eastman had proposed to allocate the orders among the companies on the basis of the lowest price bid, and to ask prices later on 245,221 tons of fastenings also to be purchased with the aid of government loans. He had also stated that the available information warranted the conclusion that the base price to be submitted "should be below rather than above $35 per ton" and that it was quite possible that the amounts would exceed the tentative figures.

The price of $37.75 quoted as a base is a reduction of $2.25 under the previous price of $40 a ton, which was reduced last year from the $43 price in effect since January 1, 1923. It is also the lowest price since 1916 and was named, after the President had asked for a substantial reduction, in spite of the fact that the cost of steel manufacture has recently been increased under the N.R.A. code and the federal government is conducting a campaign to increase commodity prices generally. Mr. Eastman, however, in his original letter to the steel companies, had taken the position that the price of rails had been maintained at too high a figure and in view of the emergency had urged a reduction both to aid the campaign to stimulate business and in recognition of the proposed concentrated orders and the probability of a material reduction in the number of separate rail weights and cross sections.

Reduction Proposed as Temporary

The U. S. Steel Corporation, in its letter, had also referred to the reduction as "temporary only for the present emergency" and as intended to meet in the same spirit the contribution which Mr. Eastman had said the government was making.

Mr. Eastman's letter, addressed to Myron C. Taylor, chairman of the U. S. Steel Corporation, Eugene F. Grace, president of the Bethlehem Steel Corporation, L. E. Block, chairman of the Inland Steel Company, and Arthur Roeder, receiver of the Colorado Fuel & Iron Company, after referring to their letters of October 20, continued as follows:

Eastman States Government Position

Only the letter from the Bethlehem Steel Company contains a full statement of the new base prices, but it is apparent that the identity with respect to the price for first quality rails will exist as to other prices also. It is true that the price named in the Bethlehem Steel Company letter for all second quality rail (500 G. T. and over), $38.75, differs from the similar price named in the Inland Steel Company letter, $36.75, but the internal evidence suggests that this difference was caused by a typographical error in the Bethlehem Steel Company letter.

The facts that these letters bear a common date, that they name an identical price for first quality rail, f. o. b. mill, and that this price is the odd figure of $37.75 point unmistakably to the conclusion that the letters were the result of consultation and collusion. In my letter to you of October 3 I stated: "As you know, it was the understanding at the President's conference that base prices would be submitted, in response to my request, by the steel companies independently of each other and without collusion or consultation."

Clearly, what has been done is not in accord with this understanding. Moreover, there is nothing in the Code of Fair Competition which made necessary such a deviation from the understanding. In confirmation of this statement, it is noted that the letter from the U. S. Steel Corporation concludes with the following sentence: "If any of our competitors file a lower price than the above we will, of course, refile to meet their price."

Because of the evident consultation and collusion in arriving at the new uniform base prices, it seems clear that these are non-competitive prices lacking the safeguard to the consumer which competition provides. Manifestly, also, the Code was not intended to eliminate competition. On the contrary, it is by its own terms a "Code of Fair Competition."

In view of these circumstances and of the past history of steel-rail prices in this country and what is known about them, I am authorized by the President to say that the federal government is unwilling to lend money to railroad companies for the purchase of steel rails at the new base prices which have been filed, without some safeguard to the consumer and to the public interest to take the place of competition. This substitute safeguard is an examination by government accountants of the books and cost records of the steel companies.

Under existing conditions and to avoid possible delay, the government is willing to lend the necessary funds without such an examination, provided the base price, f.o.b. mill, for first quality steel rail (500 G.T. or over) is made not more than $35 per gross ton of 2240 pounds, with other prices adjusted accordingly. If the steel companies are unwilling to make this concession, then the government will lend the necessary funds only on condition that the steel companies shall file new base prices the same as those now on file but with the added stipulation that if, after government accountants have had full and free opportunity to examine the books and cost records of the steel companies, the President shall find that reductions in these prices are necessary to make them fair, the reduced prices which he then names shall be the base prices to the same extent and from the same date as if they had been originally filed. In the meantime the government will advance funds to the railroad companies on the basis of a price of $35 per gross ton for first quality steel rail, f.o.b. mill, with other prices related in the ratio of the base prices now on file, and with the understanding that the government will later advance additional funds or receive refunds to accord with such other prices, not in excess of those now on file, as the President may find to be fair. In the absence of a full disclosure of the facts, it is impossible to define in advance and in the abstract what may be fair, and this must be left to the judgment of the President.

In the letter from the Bethlehem Steel Company reference is made to section 9 of schedule E of the Code of Fair Competition. The pertinent part of this section is as follows: "Except in the case of a product required by a purchaser for a specified definite contract of such purchaser with a third party at a fixed price, none of the members of the Code shall make any contract of sale of any product by the terms of which the shipment of such product is not required to be completed before the end of the calendar quarter year ending not more than four months after the date of the making of such contract."

Apparently, if contracts for the purchase of steel rails were made in November, this provision of the Code would require shipment of all of the rails before the end of the calendar year. Some of the railroad companies will not need some of the rails until some time in 1934. Arrangements must, therefore, be made by amendment of the Code or otherwise so that it will not in such instances be necessary to complete shipments of the rails until March 31, 1934.

In my letter of October 3 I stated that certain railroads, contemplating important orders, make it a condition that the base price shall not exceed $35 per ton. There has been no change in this situation, so far as I am aware.

Letters From the Steel Companies

The letter from W. A. Irwin, president of the U. S. Steel Corporation, said that the company's counsel had advised that it would be a violation of the steel code to quote a price not in accordance with the filed base price list and continued:

After careful consideration, with particular respect to aiding the recovery program, we have authorized our several subsidiary companies interested in the manufacture of rails to file with the American Iron and Steel Institute today, under the Steel Code of fair competition, a revised price for first quality steel rails (for this emergency only) of $37.75 per Gross Ton of 2240 pounds, f.o.b. mill, Chicago, Pittsburgh and Birmingham, this price to become effective ten days after date of filing.

Our rail mills have been idle approximately 85 per cent of the time during the past two years. In the interest of getting our men back to work, and for the public good, we are willing to make the above reduction in price, with the understanding that it is temporary only for the present emergency to meet in the same spirit the contribution which you say the government is making to stimulate business and employment.

As soon as the new price becomes effective our subsidiary companies producing steel rails will submit to you a quotation,

or if you prefer one now, effective ten days after the filing of the new price they will act accordingly. If any of our competitors file a lower price than the above we will, of course, refile to meet their price.

The letter from Paul MacKall, vice-president of the Bethlehem company, said in part:

The Code of Fair Competition for the Iron and Steel Industry, approved August 19, 1933, contains certain provisions regulating the sale of rails as well as other products which it is necessary for this company as a member of the Code to observe. Among such regulations is a requirement to the effect that all prices quoted for rails by any member of the Code shall be not less than the published base prices of such member therefor effective at the time of the sale thereof. In order for us to comply with this regulation, and at the same time to meet your desire for a price or prices below our present published prices, it has been necessary for us to file a new list of base prices for rails in accordance with the provisions of the Steel Code. Attached hereto as Schedule A is a copy of the new list of base prices which are subject to the extras approved by the Board of Directors of the American Iron and Steel Institute under the Steel Code. Such new base prices will become effective on October 30, 1933, and from and after that date so long as such base prices shall remain in effect we shall be glad to accept orders from the railroad companies on the basis of such prices, subject to extras as aforesaid, and subject also to the provisions of the Steel Code, and in particular to Section 9 of Schedule E thereof, reading in part as follows: "Except in the case of a product required by a purchaser for a specified definite contract of such purchaser with a third party at a fixed price, none of the members of the Code shall make any contract of sale of any product by the terms of which the shipment of such product is not required to be completed before the end of the calendar quarter-year ending not more than four months after the date of the making of such contract."

In considering the total cost to the respective railroads of rails purchased from us at our new base prices in comparison with the cost of similar rails if obtained elsewhere, it will, of course, be necessary to consider in some instances the cost of transporting rails from the points of production to the point or points where the rails are to be delivered on the lines of the purchasing railroad companies. Where such transportation must occur by rail the cost thereof is shown in the published tariffs. There are, however, a number of possible movements by water, the costs of which are not in many instances embodied in any published tariff and are subject to fluctuations. With a view to facilitating your consideration of the question of relative cost in so far as it may be affected by water transportation to certain points, we have obtained quotations on the basis of which we are in position to give you assurances as to the maximum costs of water transportation of rails purchased under your program from our Lackawanna plant to certain points on the Great Lakes and from our Sparrows Point plant to certain points on the Atlantic seaboard. Accordingly, until we shall notify you to the contrary, we are prepared to arrange for the transportation of such rails from our plant at Lackawanna, New York, by water in cargo lots during the open lake season including delivery f.o.b. vessel alongside docks at Manitowoc, Wis., Itasca, Wis., Superior, Wis., Duluth, Minn., or Marquette, Mich., at $1.25 per gross ton, and the transportation of such rails from our plant at Sparrows Point, Maryland, by water in barge or cargo lots, including delivery f.o.b. cars on docks at the following named points on the Atlantic seaboard, at the rates hereinafter specified:

Place	Cost of Transportation per Gross Ton
Portsmouth, Va.	$1.35
Pinners Point, Va.	1.35
Norfolk, Va.	1.35
Searsport, Me.	3.10

In each case, it is understood that the cost of transportation will include the cost of insurance.

Your letter of the 3rd instant contains a number of statements with which we do not find ourselves in agreement but which, it seems to us, do not require a reply at this time.

SCHEDULE "A"

Standard Tee Rails

For Open Hearth Standard Tee Rails over 60 pounds and up to and including 152 pounds per yard, the following prices, Classification of Extras and Conditions of Sale, will apply effective October 30, 1933.

Prices in dollars per gross ton will be quoted f.o.b. cars Steelton, Pa., Sparrows Point, Md., and Lackawanna, N. Y., as follows:

	1st Quality	2nd Quality	All 2d Quality
500 G. T. and over	$37.75	$35.75	$38.75
499 G. T. to 25 G. T.	39.75	37.65	38.75
Under 25 G. T.	41.75	39.55	40.75

Prices in dollars per gross ton, will be quoted C.I.F. Gulf Ports, and Pacific Coast Ports, in cargo lots, as follows:

Gulf Ports	1st Quality	2nd Quality	All 2d Quality
New Orleans, La. Mobile, Ala.	$38.75	$36.75	$37.75
Galveston, Tex. Houston, Tex. Port Arthur, Tex.	39.50	37.50	38.50
Pacific Coast Ports			
San Francisco, Cal. San Pedro, Cal. Portland, Oregon Seattle, Wash.	41.75	39.75	40.75

Prices for No. 2 Quality Rails are based on requirements of present standards specifications which permit shipment of a maximum of 5 per cent of total tonnage when lengths are 33 feet, a maximum of 8 per cent when lengths are 39 feet, a maximum of 9 per cent when lengths are 45 feet, and maximum of 10 per cent when lengths are 60 feet.

To the above prices will be added the extras which apply as shown in Book of Uniform Extras, as published by the Iron and Steel Industry under the Code of Fair Competition.

Maximum Periods of Free Credit

Pacific Coast deliveries, made direct from Eastern Plants: 45 days from date of invoice.

For all other deliveries: 30 days from date of invoice.

The date of invoice will be the date of shipment.

Interest to be charged for all unpaid invoices from and after expiration of period of free credit.

The letter from Mr. Block, of the Inland company, briefly quoted prices of $37.75 for No. 1 quality, $35.75 for No. 2 quality, and $36.75 for No. 2 quality (only), f.o.b. mill Indiana Harbor, Ind., with the regular extras to govern. Mr. Roeder's letter briefly stated that his company had filed with the Iron & Steel Institute a base price of $37.75 for Number 1 standard Tee rails weighing more than 60 pounds per yard.

I. C. C. Prescribes Regulations for P. W. A. Loans

The Interstate Commerce Commission, having under consideration the provision of the national industrial recovery act which authorizes and empowers the President to make loans "to aid in the financing of such railroad maintenance and equipment as may be approved by the Interstate Commerce Commission as desirable for the improvement of transportation facilities," on October 25 entered an order that any railway company seeking a loan under said provision shall file application with the commission for approval of the expenditure proposed to be met with the proceeds of said loan, describing in detail the nature and purpose of the proposed expenditure and stating fully the facts upon which the applicant relies as evidence that such expenditure is desirable for the improvement of transportation facilities. It has also issued regulations to govern the filing of such applications and the procedure thereon.

An Estimated Total of 2,286,000 Persons passed through the three cars and the display room in the Pullman exhibit at A Century of Progress Exposition from May 27, when the fair opened, up to and including September 30. When the exposition closes, it is expected that the total attendance will have exceeded three million. The cars on display include the George M. Pullman, all-aluminum car, and the No. 9 of the Pullman Company, and the vestibule coach of the Pullman Car & Manufacturing Corporation.

NEWS

Hearing on Trucking Code Scheduled for November 16

Adoption would mean employment for from 400,000 to 500,000 persons, says A. T. A. president

If the essential provisions of the proposed N. R. A. code for the trucking industry are adopted, hearings on which have been set for November 16, approximately 400,000 to 500,000 employes will be put to work in the highway transport business, it was estimated by Ted V. Rodgers, president of the American Trucking Associations, Inc. Through the medium of its 108 affiliated associations, the national association and the code authority will have general supervision over trucking operations reaching into every hamlet in the Nation. The one-truck operators, owning about 2,000,000 pieces of equipment, are included under the proposed code, with the exception of farmer-owned trucks not operated for hire. Industrialists, merchants and manufacturers who use their own or contract trucks to haul their own goods, also come under the trucking code so far as labor provisions are concerned.

"It is highly essential that the private or industrial hauler, who hauls his own goods in his own trucks, come under the trucking code," Mr. Rodgers explained. "There is a keen competitive situation created by the private hauler because there is always a question in the minds of business men who use the service of for-hire trucking operators as to whether it would not be cheaper for them to buy their own trucks. The code offers an opportunity, long felt in this industry, to equalize competitive conditions and stabilize rates. Operators have suffered because of chiselers both within and without the industry. Moreover, the railroads, under the guise of rates 'to meet truck competition', have established rates not compensatory."

Figures submitted to the National Recovery Administration by the association show investment in the industry in excess of $3,000,000,000, truck drivers employed, 1,500,000, and 517,796 trucks operated for hire. The total number of trucks operating not for-hire was placed at 2,745,000. Included in the latter figure are 900,385 farmer-owned trucks which do not come within the scope of the code, in so far as they do not operate for hire.

The principal features of the code provide for a 48-hour week, averaged over a period of six weeks; a sliding scale of minimum wages, ranging from 20 cents an hour to 50 cents an hour, based on population areas and whether applicable in the North or South; registration of every operator with the code authority; establishment of a uniform system of accounting and the requirement of data on operations, etc.; establishment of rate agreements by branches of the industry.

Eastman Seeking Views of Business on Needed Transport Legislation

Co-ordinator Eastman has announced his desire to elicit from interested shipper and trade associations, organizations of transportation agencies, boards of trade, chambers of commerce, etc., and individuals, such comment together with pertinent factual data as they may care to make on any or all of a number of questions relating to federal transportation legislation. Any groups or individuals desiring to respond to these questions or any other significant matter is urged to do so at as early a date as possible. The questions relate to regulation of competing forms of transportation, co-ordination, regulation of interstate motor carriers, regulation of domestic water lines and relations of industry to transportation.

The first of the twenty-five questions is "Should rail, motor and water transportation enjoy equal opportunities of competition in so far as federal regulation is concerned?" Another asks views as to the desirability of co-ordination of all agencies of transportation.

Railroads Asked to Reduce Rates on Relief Food Shipments

Harry L. Hopkins, administrator of the Federal Emergency Relief Administration, has requested the railroads to allow a 50 per cent reduction in freight rates on the transportation of large quantities of meats, fruits and vegetables, and dairy products, which are being purchased by the newly organized Federal Surplus Relief Corporation for distribution to the unemployed, to supplement the relief now being administered by various agencies. The matter was brought before the railroads at a meeting in Washington on October 27 with committees of executives representing the eastern, southern, and western districts, who are to take up the question with the various roads and give an answer by November 10. Some of the shipments would doubtless be subject to reduced land grant rates in any event. The corporation expects to open bids next week for 15,000,000 pounds of domestic beef and has already announced plans for the distribution of 6,800,500 bushels of wheat, and also butter and apples. Other commodities, including lard and dairy products, are being considered. A hundred million pounds of pork has already been purchased and is being distributed.

Express Agency Starts Extensive Sales Drive

Entire personnel to help get more business—Advertising plans nation-wide

At a meeting of officers of the Railway Express Agency in New York on October 31, L. O. Head, president of the Agency, inaugurated a nation-wide sales campaign for increased business for the company. Similar meetings will be held at cities throughout the country, all of which will be attended by President Head and, during their course, it is planned to reach every employee in the service, enlisting them and their families in an effort to attract general public attention to the economy, celerity and dependability of the service.

The campaign will be supported by advertising in newspapers, periodicals and the trade press and in every possible way the enthusiasm of the Agency personnel and the interest of the public will be stimulated. Telephone and personal calls also will be widely made upon prospective shippers.

"Every indication points to the successful culmination of President Roosevelt's efforts to hasten economic recovery and to lead the nation back to normal stabilized business conditions," Mr. Head said. "This means not only the passing of the last stages of depression but a definite trend during the coming year in the direction of increased activity in all lines of industry, manufacturing and distribution and therefore greater purchasing power, more sales and more traffic."

The sales campaign, Mr. Head added, is not based alone on the prospect of increased business in the natural course of events, but because of the wide dissemination of the service of the Agency, reaching every hamlet in the country, the campaign should in itself be of great assistance in promoting the government's drive for general business recovery. The comprehensive nature of the campaign and the care with which it has been planned indicate that it will surpass any similar effort ever put forth in the history of the express business.

Turney to Address N. Y. Club

J. R. Turney, director of the section of traffic in the organization of the Federal Co-ordinator of Transportation, will be the principal speaker at the November 17 meeting of the New York Railroad Club, which will be held at the Engineering Societies Building, 29 West Thirty-ninth street, New York, at 8 p.m., on that date.

Store-Door Tariffs of Erie and P.R.R. to Be Protested

Non-participating Eastern roads plan to join in request to I. C. C. for suspension

Non-participating Eastern railroads are expected to file with the Interstate Commerce Commission a joint request for the suspension of Pennsylvania and Erie l.c.l. store-door collection and delivery tariffs, both of which have been filed with the commission with an effective date of December 1. This action was decided upon at a meeting of the Traffic Executive Association-Eastern Territory in New York on October 27.

Following the October 27 meeting D. T. Lawrence, chairman of the Association, revealed that, as reported in the *Railway Age* of October 28, the Grand Trunk, the Boston & Maine and the Maine Central had announced their intention to participate in the P. R. R. tariff and that the Delaware & Hudson, the New York, New Haven & Hartford and the Detroit & Toledo Shore Line would join in the arrangement as bridge carriers. At the same time, Mr. Lawrence said, the Erie and Wheeling & Lake Erie had announced their intention of publishing store-door collection and delivery arrangements to become effective December 1.

"While lines other than those referred to stated it would be their purpose to establish such arrangements as might be found necessary to protect their respective interests, their study of the conditions had not progressed to the point where they were in position to make definite announcement," Mr. Lawrence's statement further said.

"It was the view of many of the lines represented that request should be made on the Interstate Commerce Commission for suspension of such tariffs as might be filed to become effective December 1, either by the Pennsylvania or by other lines because of the announcement of that Company."

The P. R. R. tariff was filed with the I. C. C. and state commissions on October 28 while the Erie tariff was filed early this week. The Wheeling & Lake Erie had not filed its tariff when this issue of *Railway Age* went to press.

Under the P. R. R. plan, all arrangements for the performance of the collection and delivery service will be made by the railroad, which, wherever possible, will enter into contracts for this purpose with established truckers in approximately 2,000 cities and towns affected. The tariffs provide that up to and including distances of 260 mi. either collection or delivery, or both, will be performed, upon the patron's request, at no advance over the existing station-to-station rates. There will, however, be minimum charges of 35 cents per 100 lb. and 50 cents per individual shipment, including both the rail haul and the collection and delivery service.

Beyond distances of 260 mi. a sliding scale of charges, additional to the station-to-station rail rate, will be in effect; these reach a maximum of 12 cents per 100 lb., which is the rate for both pick-up and delivery of l. c. l. moving distances greater than 361 mi.

"The Pennsylvania management," said a statement issued in connection with the filing of the tariff, "believes that system-wide collection and delivery will conform to the new needs of industry and commerce by providing a complete through door-to-door transportation service. The capacity for furnishing this adequately and properly has, in the opinion of the Company's management, been the greatest contribution of trucks to transportation progress.

"Under the Pennsylvania's plan, the truck will function for collection and distribution in the terminal zone, its most efficient sphere of operation. At the same time, the highways will be kept clear of the inter-city movement of a large volume of freight which can be more efficiently and dependably carried by rail.

"The inauguration of system-wide store-door collection and delivery is, in part, the result of experience gained in recent years from operating the service in certain limited areas. Included among these are New York metropolitan district, the Long Island territory, the territory between Philadelphia, Camden, Wilmington, Chester, Baltimore and points on the Delmarva Peninsula, and between the Philadelphia-Camden district and the Atlantic City-Ocean City, N. J., district."

Rates for pick-up and delivery published in the Erie tariff are substantially the same as those proposed by the P. R. R. although they are set forth in somewhat different form. There are the same minimum charges of 35 cents per 100 lb. and 50 cents per shipment. In the Erie tariff, for example, after the 35-cent minimum is passed, the rates for l. c. l. service, including collection and delivery, are identical with present station-to-station class rates until there is reached the rate of 82 cents per 100 lb., which is the first class rate for shipments moving 260 mi. Beyond that point graduated plus charges for pick-up and delivery are added to class rates, until a maximum of 12 cents per 100 lb. for both pick-up and delivery, or six cents for one of the services, is reached. The tariff applies only to and from points on the Erie but a consignee on the Erie may obtain delivery of freight originating on other roads by paying a charge of six cents per 100 lb.

The American Trucking Associations, Inc., has announced its intention of filing with the Interstate Commerce Commission a protest against the store-door tariffs. According to the announcement the protest was being prepared by counsel for the association, E. S. Brashears.

Wage Statistics For August

The total payroll of the Class I railways for the month of August was $126,967,310, according to the Interstate Commerce Commission's monthly compilation. This compares with $121,027,027 for July and $118,687,933 for August of last year. The number of employees as of the middle of the month was 1,014,263 but 1,129,001 employees were reported as having received some pay during the month either for full time or part time. This number is 14,848 larger than the corresponding total for July, 1933.

Canada's Train Service Wage Dispute Settled

Enginemen and telegraphers also included in 15 per cent cut for one year

The dispute as to the wages of the "running trades" (enginemen, trainmen and telegraphers) in Canada was ended for a year with the announcement last week in Montreal by the Canadian Pacific and Canadian National that a settlement had been reached under which the brotherhoods agreed to a reduction from their basic wage rate of 15 per cent for one year from November 1, 1933, in lieu of the present reduction of 20 per cent which had been in effect since May 1.

The statement issued jointly by the railways and heads of the five unions follows in part:

"It was announced on behalf of the Canadian National and Canadian Pacific Railways and their engineers, firemen, conductors, trainmen and telegraphers, that an agreement had been reached with reference to the wage adjustment controversy.

"The agreement provides for a 15 per cent deduction from November 1, 1933, in lieu of the 20 per cent deduction which has been in effect since May 1 last. This is to continue for one year, or until October 31, 1934, when the deduction drops to 10 per cent with the provision that after September 1, 1934, either party may serve notice of desire to change this percentage."

The dispute dates back to the fall of 1931 when, at the request of the railways, a board of conciliation sat to hear their request for a deduction of 10 per cent from the basic wage rates. Following protracted negotiations and hearings the board awarded a decision to the companies and the first 10 per cent deduction was in effect from February 4, 1932 until January 1, 1933.

At the expiration of this agreement basic rates were not restored, and the railways in announcing that they were not in a financial position to return to these rates intimated that a further reduction of 10 per cent was contemplated. This was placed in effect on May 1, making the total deduction 20 per cent. The total reduction was thus brought to 20 per cent effective from May 1, 1933.

The unions contested this action and the railways applied for a board of conciliation. This board permitted the second deduction and a strike ballot was taken, and although the result was never made public, it was claimed that the employees had voted in large majority for a strike.

Negotiations with the railways were broken off, and the union representatives had several interviews with the Minister of Labor, the Minister of Railways, and the Prime Minister. On October 5, Premier Bennett announced that following discussions with both parties he had been successful in bringing them together again and that further negotiations would be renewed without delay. In the past three weeks the vice-presidents of the unions have been meeting the managements, and last week's settlement was the outcome of these meetings.

Wisconsin Enacts Motor Carrier Regulatory Law

Provides for control over highway operators and fixes fees for use of roads

Comprehensive regulation for intra-state common, contract and private carriers, effective control over the Wisconsin operations of interstate trucks and buses and the provision of new fees to be assessed on all motor vehicles for their use of Wisconsin's highways are features of legislation enacted by the legislature at its last session.

Proceeding from its declaration of legislative intent which lists, among other purposes, a desire to "carefully preserve, foster and regulate transportation and permit the co-ordination of transportation facilities," the law invests the Public Service Commission of Wisconsin with broad powers to control the operations of all types of highway carriers. Dealing with common carriers it requires that these obtain certificates of public convenience and necessity and in this connection the commission is given power "as the public interest requires . . . to issue or refuse any such certificate; before so acting the regulatory body is required to "take into consideration existing transportation facilities in the territory for which a certificate is sought, including contract motor carriers and steam and electric railway transportation." The commission's regulatory control over common carriers extends to the designation of routes and schedules; the fixing of just and reasonable rates; the supervision of facilities, accounts and safety of operations; and the fixing of hours of service of drivers. It also has authority "to require the co-ordination of service and schedules of common motor carriers of property or passengers and electric or steam railroads."

Furthermore, municipal consents are required for operation through municipalities and "No action by any city or village under this section shall be subject to review by the commission." Certificates are issued for one year and may be transferred only upon permission from the commission. Services may be abandoned only after hearing and no common carrier of passengers is permitted to operate a trailer; double-deck buses are prohibited in interurban service and a length limit of 33 ft. is fixed for all interurban buses.

Contract carriers are required to obtain licenses from the commission and applications in this connection must reveal all contracts. The commission's regulatory power over these operators extends to supervision of routes, services, facilities, accounts, safety of operations, etc. It also has power to fix minimum rates for contract carriers if, after hearing, it finds that such carriers are undermining the rate structure of competing common carrier services.

Private carriers also are required to obtain permits from the commission with the latter having power "to designate public highways as routes over which said private motor carriers may or may not operate and to designate the time that such vehicles shall or shall not be operated thereon so as to prevent congestion which shall effect the safety of persons and property upon such public highways; to require the filing of satisfactory evidence that such vehicle is not being used for common or contract carrier purposes . . . and to prescribe reasonable and necessary rules and regulations for the safety of operation of private motor carriers."

Except for the specifically-exempted farm-to-market vehicles and intra-city operators, all types of carriers are required to pay the special fees for use of the highways. These fees are based on gross weight, which, for a truck, is the unladen weight plus the licensed carrying capacity and, for a bus, the unladen weight plus 150 times the seating capacity, including the driver's seat. Operators may elect to pay a flat annual fee or mileage fees, the choice to be made at the beginning of each year. The flat fees for pneumatic-tired trucks range from the $22.50 assessed on a vehicle of 4,500 lb. or less in gross weight to the $540 assessed on a vehicle of 36,000 lb. gross weight; for vehicles in excess of 36,000 lb. there is, in addition to the $540, a charge of $30 per ton or fraction thereof. Trucks with two or more solid tires pay twice as much. Flat fees for buses range from $75 which is the annual charge on a 4,500-lb. bus to $540 for those weighing 36,000 lb.; the charge for each ton over 36,000 lb. is in this instance also $30 and rates are double for buses with two or more solid tires.

If carriers elect to pay the mileage fees they are assessed charges for trucks, ranging from 2¼ mills per mile for a 4,500-lb. vehicle to 3.6 cents per mile for a 36,000-lb. vehicle. For each ton over 36,000 lb. the charge is two mills per mile in addition to the 3.6 cents. Double fees are applied to solid-tired trucks. Mileage fees for buses are fixed at one mill per mile for each ton or fraction thereof of gross weight.

Other provisions relate to requirements for liability insurance and indemnity bonds, saving clauses, etc. Also, to interstate carriers which are required to pay the same fees as intra-state operators and submit to regulation "to the extent that the same is an exercise of the police power of the state."

Reduced Western Fares Authorized

The Interstate Commerce Commission on October 31 authorized the western railroads to put their new basis of reduced passenger fares into effect on December 1 by filing tariffs on short notice. The Seaboard Air Line has applied to the commission for authority to put into effect reduced coach fares on the basis of two cents a mile on short notice.

Railplane Makes Trial Run

The Railplane, a new type of lightweight, high-speed railroad passenger car, developed by the Pullman Car & Manufacturing Corporation, Chicago, as described in the *Railway Age* of October 7, page 489, made its trial runs at Dearborn, Mich., on October 26. These runs took place on the Detroit, Toledo & Ironton tracks south of the William B. Stout laboratories, whose services were engaged in developing the car.

Truck Transport Expensive With All Costs Considered

P. R. R. traffic officer includes debasement of labor among the hidden costs

"Those who think that long-distance truck transportation is cheap transportation fail woefully to count all the costs, including the debasement of labor, the additional hazards on the highways, and the drain on the public purse in creating and maintaining partially free rights-of-way for highway carriers," said C. B. Sudborough, general traffic manager of the Pennsylvania, in an address on "The Public's Interest in Competing Forms of Transportation" delivered October 23 before the Harrisburg (Pa.) Rotary Club.

After a brief elaboration of his opening statement to the effect that "the regulation of motor trucks is one of the most important problems before the American people for solution," Mr. Sudborough proceeded to an emphatic denial that "the railroads are trying to strangle the trucking industry." He cited in this connection the Pennsylvania's use of motor vehicles and its pending store-door collection and delivery plan for l.c.l. freight. Also, the speaker undertook to state in a few words the position of railroads in general saying: "We do believe it is contrary to the public interest that a form of transportation which is fully regulated, and which has to own and maintain all of its own facilities, and meet all of its own expenditures out of earnings, should be compelled to face the competition of another form of transportation which is largely unregulated, and which enjoys the use of a right-of-way owned and maintained at public expense without paying adequately for that privilege."

The speaker made his plea for equality not on the ground of railroad interest nor justice but rather on considerations of "safeguarding the public interest." Anticipating a query as to the right of railroads to undertake to speak in the interest of the public, Mr. Sudborough quoted statistics of railway employment, railway stockholders and bondholders and railway taxes to show that nearly everyone in the country is in some way affected by the vicissitudes of the railway industry.

Discussing payments by motor vehicles for their use of public highways, Mr. Sudborough pointed out that from 1923 to 1930 highway construction and maintenance costs in this country totaled $11,700,000,000 of which motor vehicle fees contributed $4,000,000,000, leaving a deficit of $7,800,000,000 to be met by the general taxpayer. Using highway traffic on the New York-Philadelphia route as an example the speaker pointed out how, with 150 times the man power required to move the same tonnage as would be required if the movement were by rail, motor trucks were still able to cut under railway rates. "It must necessarily follow," he added, "that trucks receive advantages which railroads do not. Some of those advantages undoubtedly lie in the much lower wage scales and much longer working hours applied to truck operators as compared

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with those in effect on railroads. But the chief advantage lies in the use, without adequate payment, of the publicly owned and maintained rights-of-way."

The motor vehicle fees given above are for all vehicles and Mr. Sudborough contended that "trucks as a class are relatively more in arrears" since gasoline taxes work to their advantage in that their consumption of fuel is less per ton-mile than that of automobiles.

Digressing for a moment Mr. Sudborough called attention to government subsidies in the inland waterways field but returned again to a discussion of highway competition, holding in both connections, however, that we have reached a point where "transportation cannot continue to survive, and do its proper duty, half regulated and half unregulated."

Referring again to the cost of highways the speaker pointed out that "practically the sole justification for our enormously expensive, many-laned, super-highways is to solve the problem of keeping traffic moving in the presence of heavily loaded truck." "If built only to accommodate ordinary size vehicles," he added, "the cost of highways in the past 10 or 12 years would have been "billions of dollars less."

"The chief duty of truck regulation, particularly in such matters as weight and size limits, and safety measures in general, must fall upon the various states," Mr. Sudborough concluded, "these provisions should be made as nearly uniform as possible. The control and stabilizing of trucking rates within state borders is also a matter for legislation by each state, and it too should be made as nearly uniform as practicable. State regulation, however, needs to be supplemented by federal regulation of all interstate service. Otherwise it is practically certain that state regulation of trucks, no matter how well meant, will prove to be inadequate, just as it was in the case of railroads before the federal government entered the field through the Interstate Commerce Act of 1887.

"Congress has ample power to regulate highway interstate transportation service under the commerce clause of the constitution, but has never exercised that power to the present time, although it has drastically regulated the railroads, which were not even thought of at the time the constitution was adopted.

"In this entire question of truck regulation, as in all other great public problems, progress will be made as public opinion becomes clarified and united upon a sound and constructive course. For leadership, we naturally look to the business men of the country."

Bus Code Approved By President

The code of fair competition filed with the National Recovery Administration by the National Association of Motor Bus Operators, as revised by the administration after numerous conferences and a public hearing, was approved by President Roosevelt on October 31 and becomes effective on November 13. It had been approved by Deputy Administrator Malcolm Muir earlier in the month. It provides for wages for bus operators considerably lower than those paid by railroads, the minimum being $12 to $15 a week, while the rates above the minimum are to be "equitably readjusted," and minimum hours of employment are fixed at an average of 48 hours a week over a six-week period, with a maximum of 54 hours a week. All passenger motor carriers are to register their routes with the Motor Bus Code Authority and those subscribing to the code agree to abide by tariffs of fares to be filed with the code authority.

Grain Elevator Questionnaire

Co-ordinator Eastman has addressed to the railroads serving terminal grain elevators and other grain storage or handling facilities located at 29 interior points and 15 seaboard points a questionnaire seeking information regarding the ownership, operation and services of such facilities and the volume of grain traffic handled at such points. The accompanying statement says that at various times in the past questions have arisen on these points and it is the purpose to ascertain the results of leasing railroad owned facilities and to determine, if possible, the relative advantages of operating such properties under lease as compared with their direct operation by the carrier owner. Replies will be expected on or before November 15. Respondents are invited to make such supplementary statements as they may deem helpful in considering this subject.

The data asked include the names of any subsidiaries or other organizations, which own or operate terminal elevator facilities, in which respondent is financially interested by stock ownership or otherwise, giving the extent and character of such interest in each such elevator; copy of each tariff issued by respondent, as filed with state or federal regulatory authorities, showing the charges made for each service performed by each terminal elevator owned or operated by respondent; and information as to what, if any, transportation elevation services are performed by such terminal elevators for which no direct payment is made to such elevator.

Net Deficit for Eight Months, $56,073,046

The net deficit of the Class I railroads, after rentals, interest, and other deductions, was reduced to $56,073,046 for the first eight months of the year ending with August 31, according to the Interstate Commerce Commission's monthly compilation of selected income and balance sheet items. This compares with a deficit of $170,920,933 for the corresponding period of last year. For the month of August there was a net income of $17,081,362. This compares with a net deficit of $14,798,693 for August, 1932, but is less than the net income of $29,527,919 shown for July. The summary follows:

Selected Income and Balance-Sheet Items of Class I Steam Railways in the United States*

Compiled from 145 reports (Form IBS) representing 150 steam railways

TOTALS FOR THE UNITED STATES (ALL REGIONS)

For the month of August 1933	For the month of August 1932	INCOME ITEMS	For the eight months of 1933	For the eight months of 1932
$60,978,219	$27,985,137	1. Net railway operating income	$277,666,121	$148,885,369
13,257,864	14,442,235	2. Other income	117,620,199	134,310,226
$74,236,083	$42,427,372	3. Total income	$395,286,320	$283,195,595
$11,441,879	$10,840,858	4. Rent for leased roads	$87,969,986	$85,538,275
44,078,119	44,302,107	5. Interest deductions	354,558,152	351,947,785
1,634,723	2,083,100	6. Other deductions	8,831,228	16,630,468
$57,154,721	$57,226,065	7. Total deductions	$451,359,366	$454,116,528
17,081,362	§ 14,798,693	8. Net income	§ 56,073,046	§ 170,920,933
		9. Dividend declarations (from income and surplus):		
11,595,317	10,930,335	9-01. On common stock	39,454,795	52,471,586
2,925,331	2,864,596	9-02. On preferred stock	10,189,146	13,098,139

BALANCE-SHEET ITEMS *Selected Asset Items*	Balance at end of August 1933	Balance at end of August 1932
10. Investments in stocks, bonds, etc., other than those of affiliated companies (total, Account 707)	$749,054,576	$761,785,004
11. Cash	$306,447,660	$262,237,595
12. Demand loans and deposits	42,118,579	35,612,187
13. Time drafts and deposits	52,084,544	27,109,856
14. Special deposits	28,148,982	29,513,447
15. Loans and bills receivable	10,657,493	19,574,957
16. Traffic and car-service balances receivable	50,730,377	43,771,220
17. Net balance receivable from agents and conductors	44,439,423	38,247,034
18. Miscellaneous accounts receivable	133,547,674	144,927,913
19. Materials and supplies	292,893,760	335,329,105
20. Interest and dividends receivable	41,987,624	37,186,652
21. Rents receivable	2,555,544	2,701,451
22. Other current assets	4,299,950	7,442,739
23. Total current assets (Items 11 to 22)	$1,009,911,610	$983,654,156
Selected Liability Items		
24. Funded debt maturing within six months†	$104,124,346	$90,024,134
25. Loans and bills payable‡	$337,837,620	$279,109,138
26. Traffic and car-service balances payable	70,894,303	60,652,281
27. Audited accounts and wages payable	193,877,211	194,511,430
28. Miscellaneous accounts payable	53,956,738	55,932,274
29. Interest matured unpaid	199,362,985	155,964,455
30. Dividends matured unpaid	4,775,917	4,988,208
31. Funded debt matured unpaid	98,310,692	50,607,564
32. Unmatured dividends declared	14,464,738	13,850,818
33. Unmatured interest accrued	113,609,070	111,132,471
34. Unmatured rents accrued	30,152,115	30,584,031
35. Other current liabilities	15,879,175	16,421,747
36. Total current liabilities (Items 25 to 35)	$1,133,120,564	$973,754,417

* Excludes returns for Class I switching and terminal companies. Data for this class of roads were included in all published statements prior to January, 1933.

† Includes payments which will become due on account of principal of long-term debt (other than that in Account 764, funded debt matured unpaid) within six months after close of month of report.

‡ Includes obligations which mature less than two years after date of issue.

§ Deficit.

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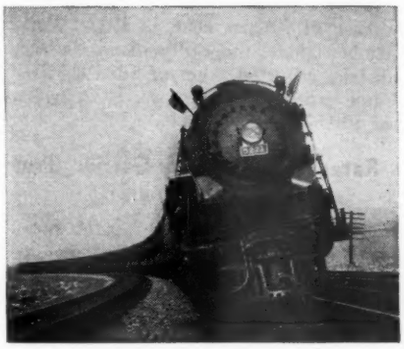
with The Locomotive BOOSTER

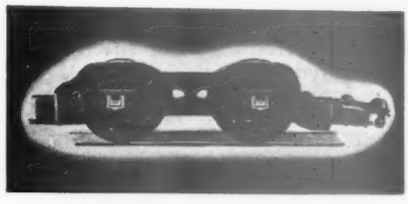


High speed passenger transportation has caught the public fancy. Railroads must supply it.

Light, fast locomotives equipped with The Locomotive Booster can speed up passenger travel without running at dangerous speeds.

By increasing acceleration and avoiding delays on the road, The Locomotive Booster can help cut time off passenger schedules and do so with safety.

Locomotives of high boiler horse-power plus The Locomotive Booster for ample power at slow speeds can meet the challenge of other modes of transportation and give the public the service it is coming to demand.



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK CHICAGO MONTREAL

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S. A. L. to Experiment with Two-Cents a Mile Coach Rate

The Seaboard Air Line plans to install on December 1 passenger rates of two cents a mile for travel in coaches. The rates, which will apply throughout the S. A. L. system, will be for an experimental period to end May 31, 1934.

Illinois Terminal Adopts Two Cent Fare

The Illinois Terminal Railroad System has reduced its basic passenger rate from 3.6 cents a mile to 2 cents, for an experimental period of ten weeks from October 22 to December 31. The surcharge on sleeping car and parlor car fares has been abolished.

Georgia-Florida Canal Advocated

Construction of the proposed $150,000,000 ship canal through south Georgia and northern Florida as a short cut-off between the Atlantic and the Gulf of Mexico, with funds to be provided by the Public Works Administration, was urged by Senator George, of Georgia, at a conference with the President on October 30. The senator said he thought the President was disposed to instruct the administration to provide funds for a survey of the project, which has been advocated by the Atlantic Ocean to Gulf of Mexico Canal Commission.

Pullman Light-Weight Rail Car—A Correction

In an article entitled "Pullman Light-Weight Rail Car Designed for High Speeds," which appeared in the October 7 issue of the *Railway Age*, it was erroneously stated on page 490 that the wheels as well as the roller bearings used on all the journals of the car described were furnished by the Timken Roller Bearing Company, Canton, Ohio. The axles were furnished by the Timken-Detroit Axle Company and the journals in the inside type cast-steel journal boxes were furnished by the Hyatt Roller Bearing Company.

Summer Excursion Fares Extended

Trans-continental railroads operating between Chicago and California and the Pacific Northwest have extended the low-rate summer excursion fares, which expired on October 15, to November 30 to bridge the gap between the expiration of the summer tickets and the new rates that go into effect on December 1. Tickets sold after October 15 will have a return limit of December 15. The fares affected are the $60.50 round-trip coach fare, the $70.50 round-trip tourist sleeping car fare, the round-trip first-class fares with a 21-day limit ($80.50 to California points and $77.75 to the Pacific Northwest) and the first-class long-limit fare of $90.30 for the round-trip.

The C. P. R. in September

Gross revenues of $11,173,335 for September, a reduction of $2,170,743 from a year ago, partially offset by a decline of $1,451,496, in operating expenses, were reported by the Canadian Pacific. Net revenue for the month was $3,003,328, compared with $3,722,576 a year ago, a reduction of $719,247.

For the nine months ended September, the company reported a gross revenue of $81,982,529, a reduction of $9,242,420 from the $91,224,950 reported a year ago. Expenses were reduced by $8,282,502, from $80,693,580 to $72,011,078, leaving net for the nine months at $9,971,451, a reduction of $559,918 from the $10,531,370 reported a year ago.

September Net at Rate of 1.98 Per Cent

Class I railroads for the first nine months of 1933 had a net railway operating income of of $340,973,877, which was at the annual rate of return of 1.78 per cent on their property investment, according to reports compiled by the Bureau of Railway Economics. In the first nine months of 1932, their net was $197,832,444, or 1.03 per cent. Operating revenues for the first nine months totaled $2,298,099,370, compared with $2,337,623,354 for the same period in 1932, a decrease of 1.7 per cent. Operating expenses amounted to $1,665,718,465, compared with $1,831,750,281 for the same period in 1932, a decrease of 9.1 per cent.

Class I railroads in nine months paid $200,153,616 in taxes, compared with $216,944,448 for the same period in 1932, a decrease of 7.7 per cent. For September alone, the tax bill amounted to $21,746,668, a decrease of $1,501,750 under September, 1932.

Thirty-four Class I railroads failed to earn expenses and taxes in the first nine months of 1933, of which 8 were in the eastern district, 7 in the southern and 19 in the western.

Class I railroads for September had a net railway operating income of $60,936,370, which, for that month, was at the rate of 1.98 per cent. In September, 1932, their net was $48,947,045, or 1.59 per cent. Operating revenues for September amounted to $292,147,176, compared with $269,532,670 in September, 1932, an increase of 8.4 per cent. Operating expenses totaled $199,416,148, compared with $187,404,992 in the same month in 1932, an increase of 6.4 per cent.

Class I railroads in the eastern district for nine months had a net of $212,260,056, at the rate of 2.31 per cent. For the same period in 1932, their net was $144,655,319, or 1.58 per cent. Operating revenues in the eastern district for nine months totaled $1,181,846,436, a decrease of 1.2 per cent below the corresponding period in 1932, while operating expenses totaled $824,250,895, a decrease of 8.4 per cent. Class I railroads in the eastern district for September had a net of $33,827,864, compared with $24,992,855 in September, 1932.

Class I railroads in the southern district for nine months had a net of $43,595,061, at the rate of 1.81 per cent. For the same period in 1932, their net amounted to $11,230,570, at the rate of 0.46 per cent. Operating revenues in the southern district for the nine months amounted to $290,963,488, an increase of 2.8 per cent above the same period in 1932, while operating expenses totaled $216,950,280, a decrease of 9.4 per cent. Class I railroads in the southern district for September had a net of $4,909,740, compared with $4,176,451 in September, 1932.

Class I railroads in the western district for nine months had a net of $85,118,760, at the rate of 1.12 per cent. For the same nine months of 1932, had a net of $41,946,555, at the rate of 0.55 per cent. Operating revenues in the nine months amounted to $825,289,446, a decrease of 3.9 per cent under the same period in 1932, while operating expenses totaled $624,517,290, a decrease of 9.8 per cent, in 1932. For September alone, the railroads in the western district reported a net of $22,198,766. The same roads in September, 1932, had a net of $19,777,739.

CLASS I RAILROADS—UNITED STATES

	1933	1932	Per cent Increase or Decrease
Month of September			
Total operating revenues	$292,147,176	$269,532,670	8.4 IN.
Total operating expenses	199,416,148	187,404,992	6.4 IN.
Taxes	21,746,668	23,248,418	6.4 DE.
Net railway operating income	60,936,370	48,947,045	24.5 IN.
Operating ratio—per cent	68.26	69.53	
Rate of return on property investment	1.98%	1.59%	
Nine months ended September 30			
Total operating revenues	$2,298,099,370	$2,337,623,354	1.7 DE.
Total operating expenses	1,665,718,465	1,831,750,281	9.1 DE.
Taxes	200,153,616	216,944,448	7.7 DE.
Net railway operating income	340,973,877	197,832,444	72.4 IN.
Operating ratio—per cent	72.48	78.36	
Rate of return on property investment	1.78%	1.03%	

Rates for Common Carrier Trucks in Missouri

A standard schedule of rates for common carrier motor vehicles engaged in intrastate freight transportation has been set up by the Missouri Public Service Commission to relieve chaotic conditions in the trucking business in that state. The new schedule, which is to become effective on January 1, 1934, requires that truck lines classify their freight according to the railroad freight classification and fix their rates at a level equal to 77½ per cent of the standard railroad class rates. The new rates will apply to less than truckload shipments, but not to milk, cream, eggs, butter, live poultry and live stock. The order also specifically authorizes the railroads to reduce their present intrastate rates to meet any of the new rates prescribed for trucks.

Long-and-Short Rule Haul Suspended

The New York State Public Service Commission has suspended the long-and-short haul section of the law to allow a rate of 18 cents per 100 lb. on gasoline in tank cars, from Albany to Auburn, Cayuga

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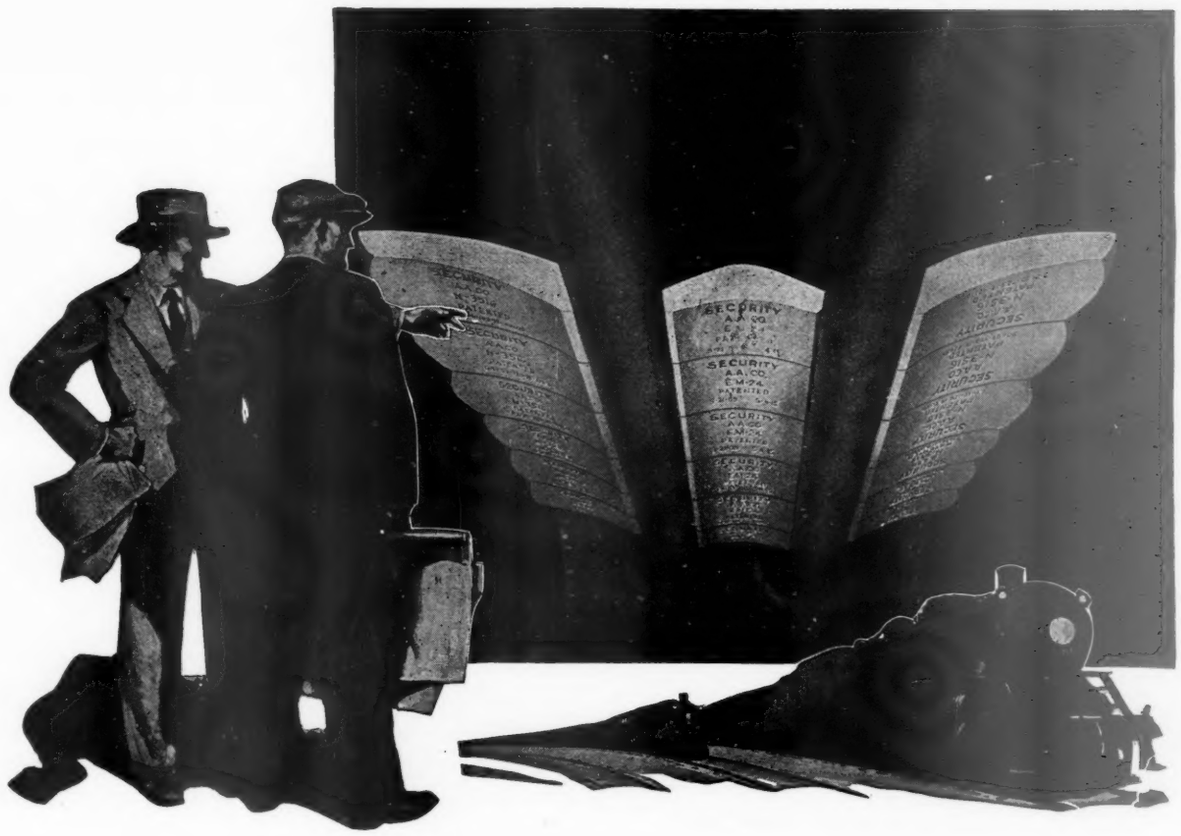

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In their many years' study of what goes on in a locomotive boiler and firebox, the service men of American Arch Company have acquired an experience that is not available elsewhere.

Many combustion difficulties arising from other causes than Locomotive Arches have been overcome thru the sound advice of these combustion experts.

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and Geneva, by way of the Delaware & Hudson and the Lehigh Valley; also from Albany to Rome and Oneida, via the D. & H. and the New York, Ontario & Western. These orders are to permit competition with the shorter line of the New York Central; but, says the Commission, the rates are not to be taken as approved; they are subject to complaint, investigation and correction if in conflict with any provision of law. At the same time, the Commission denies the application of the D. & H., the Delaware, Lackawanna & Western and the N. Y. O. & W. for similar relief on shipments from Albany and Green Island to Utica.

Proposal to Convert Railroad into Highway

A plan for the conversion of that portion of the right of way of the Chicago, Rock Island & Pacific adjacent to Forest Park and Washington university at St. Louis, Mo., into a city-county boulevard is being considered by a special committee of the St. Louis County Plan Association. The plan now under consideration anticipates a 44-ft. boulevard over a 60-ft. right of way from De Baliviere avenue in St. Louis to Elmwood Park northwest of Olivette in St. Louis county, thence to University City and Clayton. Recently the Rock Island applied to the Interstate Commerce Commission for permission to discontinue service over its tracks along this route.

World's Fair Continues to Stimulate Traffic

Continued stimulation of railway passenger business as a result of A Century of Progress Exposition at Chicago is again reflected in movements into Chicago over the week-end of October 28. Ten special trains carrying over 4,000 persons from southern and southeastern points were operated by the Chicago & Eastern Illinois into Chicago on October 29. In addition to this movement, more than 13,000 passengers were brought to Chicago on 23 extra sections of regularly scheduled trains and specials on the same day by the New York Central Lines. One train arriving in nine sections over the Cleveland, Cincinnati, Chicago & St. Louis from the Southeast brought 4,672 persons. Nine of the other sections were from New York and Boston.

The effect of the Fair on travel is further reflected in the experience of the Chicago & North Western, which road brought more than 500,000 persons into Chicago between May 27 and September 30. Special trains and extra sections of regular trains totaled 325 during that four-months period. The daily average of passengers coming through the gates at the Chicago passenger station, exclusive of commuters, was over 3,800.

U. S. C. C. Committee to Study Rate Policies

The Chamber of Commerce of the United States has announced the appointment of a new Special Committee on Railroad Rate Policies to make an analysis of the new trends in rate-making resulting from efforts of the railroads to meet highway and water competition, with a view to "recommendations for methods which will accord greater recognition to competitive and market conditions." Possibilities of simplification in the classification of goods for rate purposes and increased flexibility in rate-making procedure are among the phases to be considered. The members of the committee are: C. E. Bockus, president, Clinchfield Coal Corporation, New York, Chairman; W. C. Cowling, vice-president, Ford Motor Company, Detroit, Mich.; J. S. Crutchfield, president, American Fruit Growers, Inc., Pittsburgh; William D. Dean, president, Sprague, Warner & Co., Chicago; Eric A. Johnston, president, Brown-Johnston Company, Spokane, Wash.; W. P. Kenney, president, Great Northern, St. Paul, Minn.; L. F. Owen, Traffic Manager, R. J. Reynolds Tobacco Company, Winston-Salem, N. C.; A. R. Smith, vice-president, Louisville & Nashville, Louisville, Ky.; C. D. Sturtevant, president, Bartlett-Frazier Company, Chicago; Luther M. Walter, Walter, Burchmore & Belknap, Chicago.

Rail-Water "Circle Trips"

The Grace Line, operator of inter-coastal steamships, has entered an arrangement with several railroads in the United States and Canada, whereby "rail-water circle-trips" to California are being sold from points in both countries. The plan, which was announced in a recent statement by W. B. Wheeler, Grace Line passenger traffic manager, at New York, provides for the issuance of railway tickets to the port selected for departure and, following a steamer trip through the Panama Canal, the railway ticket is valid for a return from the opposite coast to the starting point. Liberal stopovers are permitted on the rail journey, while the steamer trip includes stops at several West Indies and Central American points.

Central Vermont Joins B. & M. and Maine Central in Air Service

A new airplane passenger line between Boston, Mass., Concord, N. H., White River Jct., Vt., and Montpelier-Barre, Vt., was established on October 27 by Boston-Maine Airways and Central Vermont Airways, the new service being a joint operation by subsidiaries of the Central Vermont, and the Boston & Maine and Maine Central.

The new line marks the entrance of the Central Vermont into the field of airplane passenger service, the Boston & Maine and the Maine Central having previously been interested in such services between Boston and points in Maine. Actual operation of the line will be conducted by National Airways, Inc., the organization which at the present time is conducting operations for Boston-Maine Airways, Inc., the airway subsidiary of the B. & M. and the Maine Central.

One round-trip will be operated daily, leaving Montpelier-Barre airport at 8.30 a. m.; White River at 9 a. m.; Concord, at 9.35, with arrival in Boston at 10.15 a. m. Northbound, the plane will leave Boston at 2.30 p. m.; Concord, 3.15.; White River Jct. at 3.50, with arrival at Montpelier-Barre airport at 4.15 p. m. The new airway of the three railroads, it was stated, is planned as a permanent, year-round operation, and may later be extended to Montreal and other points.

P. R. R. Bureau of New Ideas

The bureau of new ideas, established by the Pennsylvania six years ago, to encourage constructive suggestions from employees in all departments of the service, has received up to date 11,233 suggestions; and the plan is found to have been a signal success, as is shown by the steady increase in the percentage of suggestions adopted. In 1928, nine per cent of the suggestions received were adopted, in whole or in part; in 1929, 19 per cent; 1930, 33 per cent; 1931, 33.3 per cent; and 1932, 34.5 per cent; and this year thus far the percentage is considerably higher.

Many awards and other forms of recognition are provided for, and, in addition, there are special cash prizes each half year for each of the best three suggestions adopted. Every employee is privileged to send in any idea which he believes will help to improve methods or operations, save time, save effort or material, expedite repair work or eliminate its necessity, or otherwise advance the mutual interests of the employees and the management.

Meetings & Conventions

The following list gives names of secretaries, date of next or regular meetings and places of meetings.

AIR BRAKE ASSOCIATION.—T. L. Burton, Room 2205, 150 Broadway, New York, N. Y.

ALLIED RAILWAY SUPPLY ASSOCIATION.—F. W. Venton, Crane Company, 836 S. Michigan Ave., Chicago, Ill. To meet with Air Brake Association, Car Department Officers' Association, International Railroad Master Blacksmiths' Association, International Railway Fuel Association, International Railway General Foremen's Association, Master Boiler Makers' Association and the Traveling Engineers' Association.

AMERICAN ASSOCIATION OF FREIGHT TRAFFIC OFFICERS.—W. R. Curtis, F. T. R., M. & O. R. R., Chicago, Ill.

AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.—E. L. Duncan, 332 S. Michigan Ave., Chicago, Ill.

AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—W. C. Hope, C. R. R. of N. J., 143 Liberty St., New York, N. Y.

AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—F. O. Whiteman, Union Station, St. Louis, Mo.

AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill. Next meeting, January 20, 1934.

AMERICAN ASSOCIATION OF SUPERINTENDENTS OF DINING CARS.—F. R. Borger, C. I. & L. Ry., 836 Federal St., Chicago, Ill.

AMERICAN ELECTRIC RAILWAY ASSOCIATION.—(See American Transit Association.)

AMERICAN RAILWAY ASSOCIATION.—H. J. Forster, 30 Vesey St., New York, N. Y. Next meeting, November 9, 1933, Blackstone Hotel, Chicago, Ill.

- Division I.—Operating.—J. C. Caviston, 30 Vesey St., New York, N. Y.
  - Freight Station Section.—R. O. Wells, Freight Agent, Illinois Central Railroad, Chicago, Ill.
  - Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
  - Protective Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
  - Safety Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
  - Telegraph and Telephone Section.—W. A. Fairbanks, 30 Vesey St., New York, N. Y. Annual Meeting, June 12-14, 1934, Hotel Stevens, Chicago, Ill.
- Division II.—Transportation.—G. W. Covert, 59 East Van Buren St., Chicago, Ill.
- Division III.—Traffic.—J. Gottschalk, 143 Liberty St., New York, N. Y.
- Division IV.—Engineering.—E. H. Fritch, 59 East Van Buren St., Chicago, Ill. Annual meeting, March 13-15, 1934, Palmer House, Chicago, Ill. Exhibit by National Railway Appliances Association.

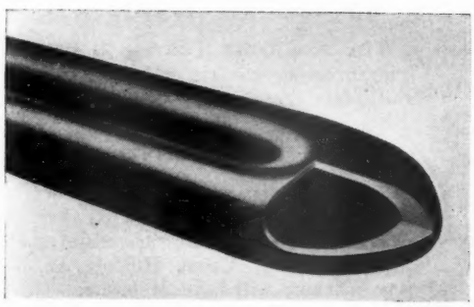
Continued on next left-hand page

If You Want *Best* Results

You will *insist* on the Elesco Unit Service.

The Elesco unit remanufacturing service gives you renewed service from old superheater units—otherwise useless because they are unserviceable—at a cost less than half that for new units.

When unserviceable units are received at the Elesco plant for remanufacturing, experienced workmen carefully examine them, and sort out the lengths of tubing that are still in serviceable condition. To this old tubing is added enough new tubing to make complete units. While units so fabricated are classified as "remanufactured", they have full-size areas, they are fitted with new bands and supports, and new unit bolts . . . . in every way, they are in a condition to give the same full-capacity, full-efficiency service of new units.



A section of a remanufactured superheater unit —full-sized areas faithfully maintained. One of many reasons why remanufactured superheater units give the same full-capacity, full-efficiency service as new Elesco units.

The next time you are confronted with repairing or replacing superheater units, let your Elesco service engineer explain how the Elesco unit remanufacturing service saves on replacement costs, eliminates the uncertainty of make-shift repairs, and assures continuance of full superheater capacity. Or, we shall gladly send descriptive literature.

NRA MEMBER U.S. WE DO OUR PART

THE SUPERHEATER COMPANY

Representative of AMERICAN THROTTLE COMPANY, Inc.

60 East 42nd Street
NEW YORK

ELESCO

Peoples Gas Building
CHICAGO

Canada: The Superheater Company, Limited, Montreal

A-818

Superheaters . Feed Water Heaters . Exhaust Steam Injectors . Superheated Steam Pyrometers . American Throttles

Construction and Maintenance Section.—E. H. Fritch, 59 East Van Buren St., Chicago, Ill. Annual Meeting, March 13-15, 1934, Palmer House, Chicago, Ill.

Electrical Section.—E. H. Fritch, 59 East Van Buren St., Chicago, Ill.

Signal Section.—R. H. C. Balliet, 30 Vesey St., New York, N. Y.

Division V.—Mechanical.—V. R. Hawthorne, 59 East Van Buren St., Chicago, Ill.

Equipment Painting Section.—V. R. Hawthorne, 59 East Van Buren St., Chicago, Ill.

Division VI.—Purchases and Stores.—W. J. Farrell, 30 Vesey St., New York, N. Y.

Division VII.—Freight Claims.—Lewis Pilcher, 59 East Van Buren St., Chicago, Ill.

Division VIII.—Motor Transport.—George M. Campbell, 30 Vesey St., New York, N. Y.

Car Service Division.—C. A. Buch, 17th and H. Sts., N. W., Washington, D. C.

AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—C. A. Lichty, C. & N. W. Ry., 319 N. Waller Ave., Chicago, Ill.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—J. A. Senter, Ind., Agt., N. C. & St. L. Ry., Nashville, Tenn. Semi-annual meeting, December 7-8, 1933, Sherman Hotel, Chicago, Ill.

AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in co-operation with the American Railway Association. Division IV.—E. H. Fritch, 59 East Van Buren St., Chicago, Ill. Annual meeting, March 13-15, 1934, Chicago, Ill. Exhibit by National Railway Appliances Association.

AMERICAN RAILWAY MAGAZINE EDITOR'S ASSOCIATION.—J. L. James, L. & N. Employes' Magazine, Louisville, Ky.

AMERICAN RAILWAY TOOL FOREMEN'S ASSOCIATION.—G. G. Macina, C., M., St. P. & P. R. R., 11402 Calumet Ave., Chicago, Ill. Exhibit by Tool Foremen Suppliers' Association.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—R. E. Schindler, Union Trust Bldg., Washington, D. C.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—Calvin W. Rice, 29 W. 39th St., New York, N. Y. Annual meeting, December 4-9, 1933, 29 W. 39th St., New York, N. Y. Railroad Division—Marion B. Richardson, Ahrens & Richardson, 30 Church St., New York, N. Y.

AMERICAN TRANSIT ASSOCIATION.—Guy C. Hecker, 292 Madison Ave., New York, N. Y.

AMERICAN WOOD PRESERVERS' ASSOCIATION.—H. L. Dawson, 1427 Eye St., N. W., Washington, D. C. Annual meeting, January 23-25, 1934, Rice Hotel, Houston, Tex.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—H. D. Morris, District Claim Agent, Northern Pacific Ry., St. Paul, Minn. Annual meeting, 1934, Cleveland, Ohio.

ASSOCIATION OF RAILWAY ELECTRICAL ENGINEERS.—Jos. A. Andreucetti, C. & N. W., 1519 Daily News Building, 400 W. Madison St., Chicago, Ill. Exhibit by Railway Electrical Supply Manufacturers' Association.

ASSOCIATION OF RAILWAY EXECUTIVES.—Stanley J. Strong, Transportation Building, Washington, D. C.

BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—S. A Baber, High Grade Manufacturing Co., 10418 S. Clair Ave., Cleveland, Ohio. Meets with American Railway Bridge and Building Association.

CANADIAN RAILWAY CLUB.—C. R. Crook, 2276 Wilson Ave., N. D. G., Montreal, Que. Regular meetings, second Monday of each month, except June, July, and August, Windsor Hotel, Montreal, Que.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—A. S. Sternberg, M. C. B. Belt Ry. of Chicago, 7926 South Morgan Street, Chicago, Ill.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—G. K. Oliver, 2514 W 55th St., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, Bismarck Hotel, Chicago, Ill.

CAR FOREMEN'S ASSOCIATION OF LOS ANGELES.—J. W. Krause, Room 299, 610 So. Main St., Los Angeles, Cal. Club not active at present time.

CAR FOREMEN'S ASSOCIATION OF ST. LOUIS, MO.—J. F. Brady, Main and Barton Sts., St. Louis, Mo. Operation suspended indefinitely.

CENTRAL RAILWAY CLUB OF BUFFALO.—M. D. Reed, 1817 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.

CINCINNATI RAILWAY CLUB.—D. R. Boyd, 2920 Utopia Place, Hyde Park, Cincinnati, Ohio. Operation suspended indefinitely.

CLEVELAND RAILWAY CLUB.—F. L. Frericks, 14416 Alder Ave., Cleveland, Ohio. Regular meetings second Monday of each month, except June, July and August, Hotel Cleveland, Cleveland, Ohio.

INTERNATIONAL RAILROAD MASTER BLACKSMITHS' ASSOCIATION.—W. J. Mayer, Michigan Central R. R., Detroit, Mich.

INTERNATIONAL RAILWAY FUEL ASSOCIATION.—T. D. Smith, 1660 Old Colony Building, Chicago, Ill.

INTERNATIONAL RAILWAY GENERAL FOREMEN'S ASSOCIATION.—Wm. Hall, 1061 W. Wabasha St., Winona, Minn.

MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany, N. Y.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—James B. Walker, 270 Madison Ave., New York, N. Y.

NATIONAL ASSOCIATION OF RAILROAD TIE PRODUCERS.—(See Railway Tie Association).

NATIONAL RAILWAY APPLIANCES ASSOCIATION.—C. W. Kelly, Suite 322, 910 South Michigan Ave., Chicago, Ill. Exhibit at A. R. E. A. convention.

NATIONAL SAFETY COUNCIL.—Steam Railroad Section (See Safety Section, American Railway Association).

NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September. October and November meetings to be held at University Club, 40 Trinity Place, Boston, Mass.

NEW YORK RAILROAD CLUB.—D. W. Pye, 30 Church St., New York, N. Y. Regular meetings third Friday of each month, except June, July and August, 29 W. 39th St., New York, N. Y.

PACIFIC RAILWAY CLUB.—W. S. Wollner, P. O Box, 3275, San Francisco, Cal. Regular meetings second Thursday of each month, alternately in San Francisco and Oakland.

RAILWAY ACCOUNTING OFFICERS' ASSOCIATION.—E. R. Woodson, Transportation Building, Washington, D. C. Annual meeting, 1934, White Sulphur Springs, Va.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton (Treas. and Asst. Sec.), First National Bank Building, Chicago, Ill. Annual meeting, November 9, 1933, Hotel Stevens, Chicago, Ill.

RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 1841 Oliver Building, Pittsburgh, Pa. Regular meetings, fourth Thursday of each month except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRICAL SUPPLY MANUFACTURERS ASSOCIATION.—Edward Wray, 9 S. Clinton St., Chicago, Ill. Meets with Association of Railway Electrical Engineers.

RAILWAY FIRE PROTECTION ASSOCIATION.—R. R. Hackett, Baltimore & Ohio R. R., Baltimore, Md.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—J. D. Conway, 1841 Oliver Bldg., Pittsburgh, Pa. Meets with Mechanical Division Purchases and Stores Division and Motor Transport Division, American Railway Association.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with Telegraph and Telephone Section of A. R. A. Division I.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 1252 Syndicate Trust Bldg., St. Louis, Mo.

RAILWAY TREASURY OFFICERS' ASSOCIATION.—L. W. Cox, 1428 Broad Street Station Building, Philadelphia, Pa.

ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—T. F. Donahoe, Gen. Supvr. Road, Baltimore & Ohio, Pittsburgh, Pa.

ST. LOUIS RAILWAY CLUB.—B. W. Frauenthal, Drawer 24, M. P. O., St. Louis, Mo. Meetings temporarily suspended.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with A. R. A. Signal Section.

SOCIETY OF OFFICERS, EASTERN ASSOCIATIONS OF RAILROAD VETERANS.—M. W. Jones, Baltimore & Ohio, Mt. Royal Station, Baltimore, Md.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—R. G. Parks, A. B. & C. R. R., Atlanta, Ga.

SUPPLY MEN'S ASSOCIATION.—E. H. Hancock, Treasurer, Louisville Varnish Co., Louisville, Ky. Meets with A. R. A. Division V, Equipment Painting Section.

TOOL FOREMEN SUPPLIERS' ASSOCIATION.—E. E. Caswell, Union Twist Drill Co., 11 S. Clinton St., Chicago, Ill. Meets with American Railway Tool Foremen's Association.

TORONTO RAILWAY CLUB.—N. A. Walford, P. O. Box 8, Terminal "A," Toronto, Ont. Regular meetings first Friday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—L. C. Ryan, Oxweld Railroad Service Co., Carbon & Carbide Building, Chicago, Ill. Meets with Roadmasters and Maintenance of Way Association.

TRAVELING ENGINEERS' ASSOCIATION.—W. O. Thompson, 1177 East 98th St., Cleveland, O.

WESTERN RAILWAY CLUB.—C. L. Emerson, C. M. St. P. & P., Chicago, Ill. Regular meetings third Monday of each month, except June, July, August and September, Hotel Sherman, Chicago, Ill.

Equipment and Supplies

LOCOMOTIVES

THE HILLSBORO & NORTHEASTERN has ordered a 35-ton, 6-wheel drive Plymouth gasoline locomotive from the Fate-Root-Heath Company (Plymouth Locomotive Works).

FREIGHT CARS

THE WAR DEPARTMENT, United States Engineers, New Orleans, La., reported in the *Railway Age* of September 9 as inquiring for four asphalt cars of 20 tons' capacity, has ordered this equipment from the Atlas Car & Manufacturing Company.

E. I DU PONT DE NEMOURS & COMPANY has ordered 10 special tank cars of 10,000 gal. capacity for the transportation of anhydrous ammonia from the General American Transportation Corporation. The tanks will be forge-welded and surrounded with four inches of cork insulation. The cars are now being built in General American's tank car plant at Sharon, Pa.

PASSENGER CARS

THE DENVER & RIO GRANDE WESTERN is inquiring for prices on the conversion of three coaches to chair cars.

THE NEW YORK CENTRAL is inquiring for three gas-electric baggage and mail rail motor cars.

SIGNALING

THE CHESAPEAKE & OHIO has ordered from the Union Switch & Signal Company material for an electro-pneumatic interlocking, at MW Cabin, Hilldale, W. Va. The machine will have 31 levers.

Supply Trade

A. V. Grove has been transferred from the office of **Steel & Tubes, Inc.,** at Cleveland, Ohio, to the Chicago office in the sales department. **R. E. Doyle** is sales correspondent and **J. F. Keeler** is sales engineer, both with headquarters at Cleveland.

Simon M. Dolan, vice-president of the G. F. Cotter Supply Company, Houston, Tex., has severed his connection with that organization and has established an office in the Railway Exchange building, St. Louis, Mo. Mr. Dolan will represent several manufacturers of railway devices.

The Inland Steel Company, Chicago, has opened a sales office at 1511 Kirby building, Dallas, Texas. This office will have charge of sales in the state of Texas, (with the exception of the city of El Paso), and in the city of Shreveport, La. **F. B. McKinney,** district sales manager is in charge of the office.

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WE GO ON RECORD

STEAM has remained the dominating form of motive power throughout over 100 years of American Railroading.

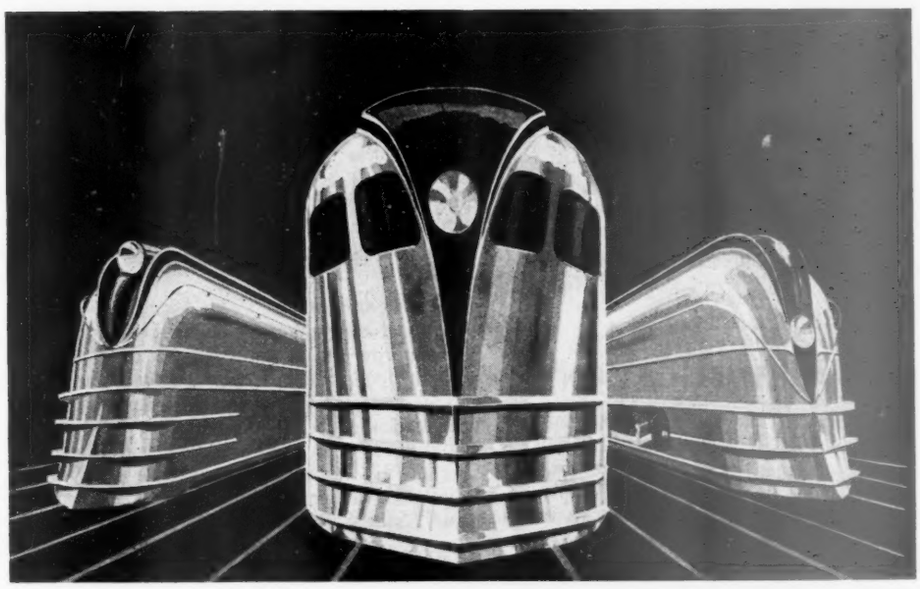
During this time, periodically, especially following the introduction of some new thought or experiment in transportation, there has appeared in the daily press obituaries anticipating the death and burial of the steam locomotive. But each time the steam locomotive must have taken a new gasp of breath for it rose again and again to greater heights in efficiency and economy of operation.

Just now much discussion is taking place regarding the amount of weight which has been added to rolling stock in the continued search for more and more safety. And from much of this discussion we would again suppose that the steam locomotive has at last been laid to rest.

The American Locomotive Company, therefore, wishes to go on record with the following statement — that come what may — extremely light weight trains, very high speeds, streamlining, or what-not — steam designs are ready to meet every demand of our railroads with the least amount of experimentation.

And the same factors, peculiar to steam operation, such as low first cost, economy of operation, low maintenance, reliability, safety, high horsepower at speed, and the capability of being operated and maintained with present railroad facilities and organization, factors which have kept steam the dominating power in American Railroading for over 100 years, will continue to keep steam the dominating power for railroad transportation for a long, long time to come.

AMERICAN LOCOMOTIVE COMPANY



30 CHURCH STREET · NEW YORK · N·Y·

We are prepared to submit streamlined designs, steam or diesel powered as desired, to meet any or every demand of our railroads.

The Accurate Manufacturing Company, with factory and executive offices at 44 Hepworth Place, Garfield, N. J., will open a sales office, about November 15 under the management of **Willard C. Candee,** at 50 Broad street, New York City. This company specializes in the manufacture of "quality" rubber splicing and friction tapes.

Kenneth Auburn has been appointed district sales manager for the American Locomotive Company at New York, succeeding **F. H. Reynolds,** effective November 1. Mr. Auburn has been with the American Locomotive Company since 1920, when he started on the special apprenticeship course at the Schenectady (N. Y.) works. He afterwards served as a draftsman and designing engineer and since 1927 has been attached to the sales department in the St. Louis, Mo., and New York districts.

P. M. Smith, formerly manager of the railroad department of the Keasbey & Mattison Company has been elected a Grand Officer of the Brotherhood of Locomotive Engineers and editor and manager of the Locomotive Engineers Journal, with headquarters at Cleveland, Ohio. Mr. Smith at one time was an engineman on the Chicago & Eastern Illinois and later an assistant superintendent at International Falls, Minn. Later he became manager of the railroad department of the Keasbey & Mattison Company, and in 1930 served as chairman of the Finance Committee of the Railway Business Association.

N. R. A. Codes

A hearing on the proposed code of fair competition for the structural steel and iron fabricating industry was held on October 30 before Deputy Administrator Murray of the National Recovery Administration. A hearing on the code submitted by the Gray Iron Founders' Society has been assigned for hearing on November 9 before Deputy Administrator H. O. King.

OBITUARY

William Coyne, vice-president in charge of sales of E. I. du Pont de Nemours & Co., with headquarters at Wilmington, Del., died on October 31, of a heart attack. Mr. Coyne was born 67 years ago at Calumet, Ind., and entered the service of E. I. du Pont de Nemours & Co. in 1904.

TRADE PUBLICATION

SUPPLEMENT TO POCKET COMPANION.—The Carnegie Steel Company, Pittsburgh, Pa., has issued a supplement to the abridged edition of its Pocket Companion, which is devoted almost entirely to tables giving the dimensions and other information of CB sections. This catalog supersedes all information relating to CB sections given in prior publications. It contains the properties and all official detail dimensions of the modified CB series, the changes in this series being incidental to full standardization with other makers of wide-flanged beams.

Construction

BOSTON & ALBANY.—This company has been ordered by the New York Public Service Commission to submit, not later than January 1, 1934, a general plan for the elimination of the Third street and Tanners Lane crossings in Hudson, Columbia county, N. Y. The commission had previously ordered the elmination of these crossings, as was reported in the *Railway Age* of June 10.

DELAWARE & HUDSON.—The New York Public Service Commission has approved as not excessive a low bid of $15,808, submitted by I. M. Ludington's Sons, Inc., Rochester, N. Y., for the construction of a new undercrossing of this company's tracks at Voorheesville in Albany county, N. Y. The railroad was directed to begin work as soon as practicable.

ERIE-DELAWARE, LACKAWANNA & WESTERN.—Contract plans and an estimate of cost of $240,000 for the elimination of the Bordens, Talbert, Mills and Wolf run crossings of the Erie and the D. L. & W. in the towns of Campbell and Bath, Stuben county, N. Y., have been approved by the New York Public Service Commission.

ERIE-DELAWARE, LACKAWANNA & WESTERN.—The New York Public Service Commission has approved revised detail plans and an estimate of cost, exclusive of land and property damages, of $129,627 in connection with the elimination of the grade crossings of the Erie and the Delaware, Lackawanna & Western in the town and village of Horseheads and Big Flats, Chemung county, N. Y. The project includes the proposed elimination of the Horseheads-Corning county highway crossings of the Erie and the D. L. & W.; the Brown road crossings of both of these roads; the Chemung street crossing of the Erie; the Lackawanna avenue and Hallet street crossings of the D. L. & W. The commission also approved descriptions and maps showing lands and easement rights to be acquired at an estimated cost of $32,700, in connection with the elimination of 10 crossings of the Erie and D. L. & W., west of the Chenango river in Binghamton, Broome county, N. Y. The crossings are at Liberty street, Prospect avenue, Oak, Murray, Walnut, Crandell, Charles, and Jarvis streets, Glenwood avenue and Emma street.

MISSOURI PACIFIC.—The board of estimate and apportionment of St. Louis, Mo., has approved a bill appropriating $50,000 for the construction of a reinforced concrete viaduct to carry Ivory avenue over the tracks of the Missouri Pacific in South St. Louis. The federal government is expected to furnish an additional $100,000 for this project, which is estimated to cost about $150,000.

NEW YORK CENTRAL.—This road will receive bids on December 5 for the elevation of its tracks at Syracuse, N. Y., to cost about $7,500,000.

NEW YORK CENTRAL.—A contract has been given to William M. Ballard, Inc., Syracuse, N. Y., for reconstruction of bridge No. 57-A at Corning, N. Y. The work involves using about 355 tons of steel. A contract has been given to the George F. Driscoll Company, Brooklyn, N. Y., for the construction of battery charging room between 29th and 30th streets and Ninth and Tenth avenues in New York City.

NEW YORK CENTRAL.—This company has been ordered by the New York Public Service Commission to submit a general plan for the elimination of the Walden avenue and Union road crossings in the town of Cheektowaga, Erie county, N. Y., on or before December 15. The elimination of these crossings was ordered by the commission some time ago at an estimated cost of $331,300 and provided for placing Union road below the railroad and bringing Walden avenue into Union road north of the tracks.

NEW YORK CENTRAL.—This road has been directed by the New York Public Service Commission to submit, by December 15, a general plan for the elimination of the Blossom road crossing in Rochester, Monroe county, N. Y. The commission directed the elimination of this crossing some time ago at an estimated cost of $463,600. The commission also ordered this road to submit, on the same date, a general plan for the elimination of the Ontario street crossing in Tonawanda, Erie county, N. Y. The crossing was ordered eliminated by placing the highway below the railroad, at an estimated cost of $375,000. Another order issued by the commission directs N. Y. C. to submit a general plan by January 1, for the elimination of two grade crossing projects in Westchester county, N. Y., this includes the Yonkers avenue crossing, Dunwoodie station in Yonkers, and the Main street and Robson crossings, at Bedford Hills in the town of Bedford. The elimination of the Yonkers avenue crossing was directed some time ago at an estimated cost of $288,900; the estimated cost for the work on the Bedford crossings is $322,540. The road has also been directed by the commission to submit a general plan by January 1, for the elimination of the Bridge street crossing and Minaville street crossing in the city of Amsterdam, Mongomery county, N. Y. The estimated cost of the elimination is $97,400. Detailed plans have been ordered, by the commission, to be submitted not later than February 1, for the elimination of the New York Central grade crossing on the Saugerties-Kingston state highway in the town and county of Ulster, N. Y. The elimination is to be accomplished by placing the highway above the railroad, at an estimated cost of $180,000.

PENNSYLVANIA.—A contract has been given Eugene V. Verga, Camden, N. J., for the construction of a steel and concrete bridge over Marlton Pike, state highway route 40, south of Merchantville, N. J., at a cost of $39,500.

PENNSYLVANIA.—The directors of this company have approved an appropriation of $360,000 for continuing the work on separation of grades on the Englewood Connecting Railway in Chicago. The present work includes regrading and repaving of streets for 22 underpasses, which were previously constructed, the lighting of these

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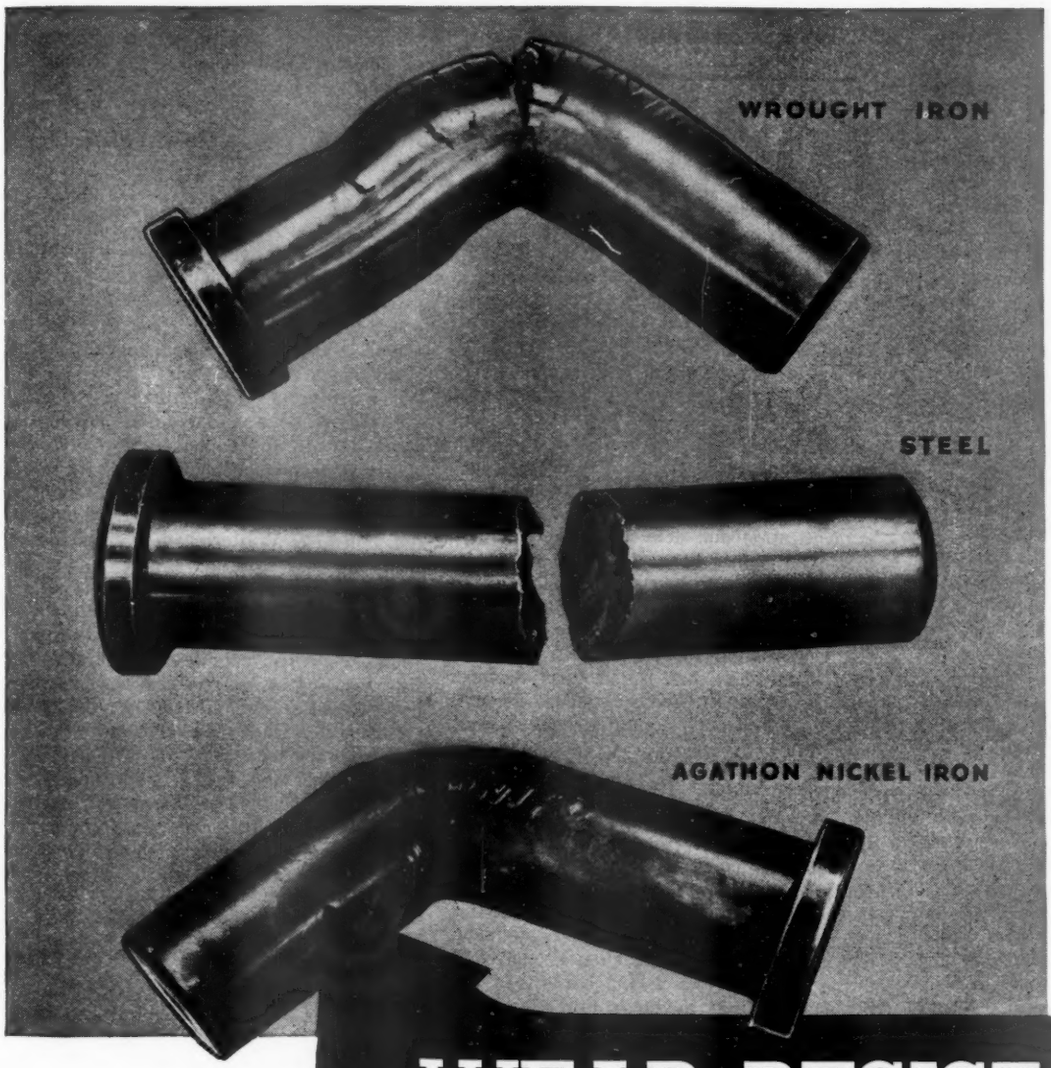

WEAR RESISTANCE

that won't crack under shock

Extremely hard surfaces for wear resistance have heretofore been brittle under shock. » » » But in Agathon Alloy Iron, Republic metallurgists have developed a material for case-hardening that has a tough core. » » » Wear resistance and shock resistance are now combined in Agathon Nickel Iron to give longer life to wearing parts and freedom from breakage. » » » Agathon Nickel Iron has a reputation for toughness. Observe the test illustrated above and note the toughness of the Agathon Nickel Iron under repeated hammer blows. » » » This modern alloy iron is ideal for all case-hardened work. There are no slag spots or seams, and warping is almost negligible. Grinding is unnecessary and the finished cost with Agathon Nickel Iron is lower. Use it for all case-hardened pins and bushings.

Toncan Iron Boiler Tubes, Pipe, Plates, Culverts, Rivets, Staybolts, Tender Plates and Firebox Sheets • Sheets and Strip for special railroad purposes • Agathon Alloy Steels for Locomotive Parts • Agathon Engine Bolt Steel • Agathon Iron for pins and bushings • Agathon Staybolt Iron • Climax Steel Staybolts • Upson Bolts and Nuts • Track Material, Maney Guard Rail Assemblies • Enduro Stainless Steel for dining car equipment, for refrigeration cars and for firebox sheets • Agathon Nickel Forging Steel.

CENTRAL ALLOY DIVISION, MASSILLON, OHIO

REPUBLIC STEEL
CORPORATION
GENERAL OFFICES YOUNGSTOWN, OHIO

AGATHON NICKEL IRON

underpasses and the construction of wing walls for the south ends of underpasses.

PENNSYLVANIA - READING SEASHORE LINES.—This company, which was organized as a consolidation of the West Jersey & Seashore and the Atlantic City Railroad in May, 1931, was granted permission by the New Jersey Board of Public Utility Commissioners, to build a station in Atlantic City, N. J., to cost about $4,000,000. The commission has subsequently modified this order and approved a plan to eliminate a number of grade crossings in Atlantic City so that work on this project may be begun promptly.

SOUTHERN PACIFIC.—In co-operation with the highway commissions of the states in which its lines are located, this road has developed a grade separation program which, to date, contemplates the construction of 17 grade separation structures. The projects are to be financed with funds furnished by the federal government in accordance with the provisions of the National Industrial Recovery Act. In California, the following structures are proposed, giving the location, the type of structure and the estimated cost: McConnell, subway, $126,000; Oil Junction, overhead, $89,000; El Monte, subway, $50,000; Cordelia, subway, $40,000; and Ventura, overhead, $50,000. In Arizona, overhead crossings are planned at Gila, Amole and Casa Grande, each having an estimated cost of $50,000, while in Oregon subways are planned at Milwaukie, $20,000; and Ashland, $50,000. In New Mexico a subway is planned at Lordsburg, at a cost of $80,000, and an overhead crossing at Alamogordo, $40,000. Negotiations are also in progress which are expected to lead to the construction of overgrade crossings at Wells, Nev., and Tularosa, N. M., and Carrizozo. On the Northwestern Pacific, a subsidiary of the Southern Pacific, overhead crossings are planned at Preston, Cal., and Hopland, each of which has an estimated cost of $40,000.

TERMINAL RAILROAD ASSOCIATION OF ST. LOUIS.—The Board of Public Service of St. Louis, Mo., will receive bids on or about November 28 on the following improvements in connection with the municipal bridge across the Mississippi river between St. Louis and East St. Louis, Ill.: The construction of a double track on the railroad deck of the bridge, together with the replacement of such ties, rails, switch material, signaling apparatus and other facilities on the railroad deck as are necessary; the laying of ties and rails and the installation of the signal systems, interlocking and other necessary appurtenances on the East St. Louis Union Station railroad approach to the bridge, which is 7,130 ft. in length; the construction of a double-track approach from a point on Nineteenth street in East St. Louis to a connection at grade with the tracks of the Illinois Transfer railroad north of Valley Junction, Ill., a distance of 2,300 ft.; and the construction of a double-track extension of the western railroad approach of the bridge to a point in the yards of the Terminal Railroad Association at or near Eighth street, 850 ft., to be known as the St. Louis Union Station approach.

Financial

ARIZONA SOUTHERN.—*Abandonment.*—The Interstate Commerce Commission has authorized this company to abandon its line extending from Silverbell, Ariz., to a connection with the Southern Pacific at Red Rock, 21 miles.

BALTIMORE & OHIO.—*Abandonment.*—This company has applied to the Interstate Commerce Commission for authority to abandon the line of the Cheat Haven & Bruceton from Morgan Run Junction, W. Va., to Laurel Furnace, 1.18 miles.

CHICAGO, INDIANAPOLIS & LOUISVILLE.—*Bonds.*—The Interstate Commerce Commission has again denied the request of this company for authority to procure the authentication and delivery of $177,000 of first and general mortgage 6 per cent bonds, series B, to be pledged as collateral security for notes. This application was denied on April 10 and was reopened by the Commission on June 30. The railroad contended that the earlier decision was passed on its income prior to the upturn in business. Commissioners Meyer and Miller dissented.

CHICAGO, ROCK ISLAND & PACIFIC.—*Modification of Consolidation Report Denied.*—The Interstate Commerce Commission has denied this company's petition for a modification of the report in which the commission conditionally approved the proposed merger of the Rock Island and eleven subsidiaries by eliminating the condition that the Rock Island agree to abide by such findings as the commission may hereafter make with respect to the acquisition of the Wichita Northwestern.

KAUAI.—*Abandonment.*—This company has applied to the Interstate Commerce Commission for authority to abandon its entire line of 15.69 miles on the island of Kauai, Hawaii.

MOBILE & OHIO.—*To Retire Bonds.*—This company, which is in the hands of receivers, will, it is said, soon offer to retire some of its bonds before maturity as a result of an order issued by the Federal Court in Mobile, Ala., releasing $540,000 held by the City Bank & Farmers Trust Co. to be used in redeeming its general mortgage 4 per cent bonds of 1938.

MOREHEAD & NORTH FORK.—*Abandonment.*—The Interstate Commerce Commission has authorized this company to abandon that part of its line extending from a point four miles southeast of Morehead, Ky., to Redwine, 20.2 miles.

NEW MEXICO MIDLAND.—*Abandonment.*—This company has applied to the Interstate Commerce Commission for authority to abandon its line from San Antonio, N. M., to Carthage, 10 miles.

NORTHEAST OKLAHOMA.—*Abandonment.*—The Interstate Commerce Commission has authorized this company to abandon 2.4 miles of line in Cherokee County, Kansas.

NORFOLK & WESTERN.—*Abandoment.*—This company has applied to the Interstate Commerce Commission for authority to abandon operation over two branch lines, from Reed Junction, Va., to the Betty Baker mines, 12.24 miles, and from Speedwell Junction, Va., to Speedwell, 16.45 miles.

OZARK & PHILPOTT VALLEY.—*R. F. C. Loan Denied.*—Division 4 of the Interstate Commerce Commission has denied approval of a loan of $75,000 from the Reconstruction Finance Corporation for the construction of a proposed line of 7 miles in Franklin county, Ark.

PIONEER & FAYETTE.—*Acquisition.*—This company has applied to the Interstate Commerce Commission for authority to acquire and operate a line from Pioneer, Ohio, to Fayette, 13 miles, abandoned by the Toledo & Western.

ST. LOUIS-SAN FRANCISCO.—*Trustees Appointed.*—The permanent appointment of John G. Lonsdale, a St. Louis banker, and James M. Kurn, president of the road before bankruptcy, as trustees was approved by Federal Judge Charles B. Faris on October 28. Both men have been serving as temporary trustees.

TOWNSVILLE.—*Abandonment.*—The trustee has applied to the Interstate Commerce Commission for authority to abandon the line from Manson, N. C., to Townsville, 10 miles.

Average Prices of Stocks and of Bonds

	Oct. 31	Last week	Last year
Average price of 20 representative railway stocks..	35.04	37.80	23.30
Average price of 20 representative railway bonds..	66.27	67.73	60.03

Valuation Reports

The Interstate Commerce Commission has issued final valuation reports, finding the final value for rate-making purposes of the property owned and used for common-carriers purpose, as of the respective valuation dates, as follows:

Carolina Western	$65,000	1928
Middleburg & Schoharie	100,000	1927
Cape Fear	23,000	1928
East Berlin	140,000	1927
Tuckaseegee & Southeastern	295,000	1928
Peru, La Salle & Deer Park	65,000	1927
Condon, Kinzua & Southern	380,000	1928
Waterville	26,000	1927
Strouds Creek & Muddlety	105,000	1927

Dividends Declared

Boston & Albany.—$2.25, quarterly, payable December 31 to holders of record November 30.

Dallas Ry. Terminal.—7 Per Cent Preferred, $1.75, quarterly, payable November 1 to holders of record October 20.

Elmira & Williamsport.—Preferred, $1.61, semi-annually, payable January 2 to holders of record December 20.

Grand Rapids & Indiana.—$2.00, semi-annually payable December 20 to holders of record December 9.

Kansas City, St. Louis & Chicago.—6 Per Cent Guaranteed Preferred, $1.50, quarterly, payable November 1 to holders of record October 20.

Nashua & Lowell.—$4.00, semi-annually, payable November 1 to holders of record October 15.

Norfolk & Western.—Common, $2.00, quarterly, payable December 19 to holders of record November 19.

Philadelphia, Baltimore & Washington.—$1.50, payable December 31 to holders of record December 16.

Reading.—1st Preferred, 50c, quarterly, payable December 14 to holders of record November 23.

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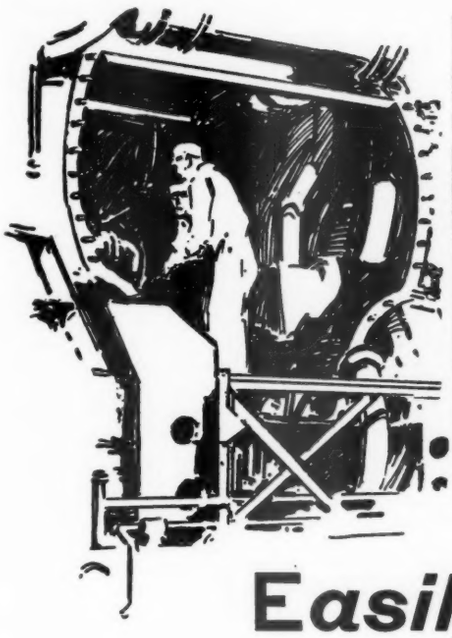

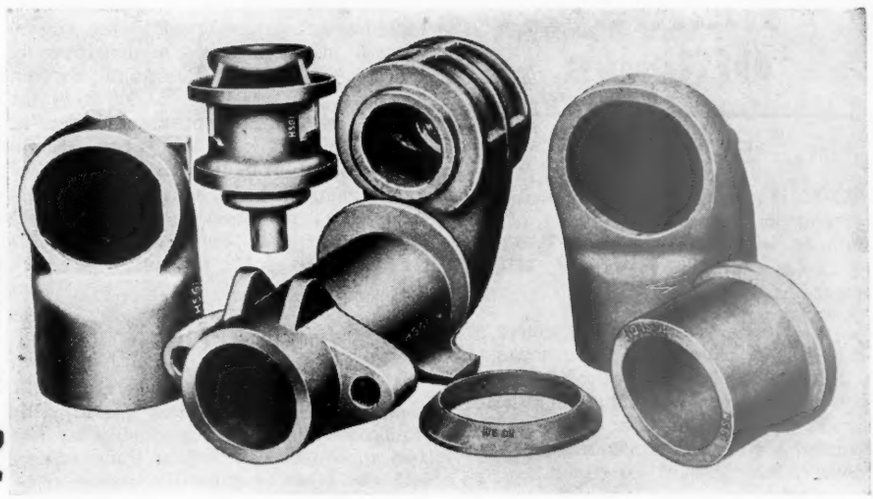

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The best way to solve this problem is to eliminate the cause.

Application of HUNT-SPILLER *Air Furnace* GUN IRON Fittings will prevent a lot of trouble and expensive maintenance.

Dry pipe Sleeves, Elbows, Stand Pipes and Throttle Boxes stamped HSGI are free from foundry defects which are the cause of dangerous and expensive leaks. Eliminate this heavy repair job and save your road thousands of dollars annually.

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Cylinder Bushings
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Valve Bull Rings
Crosshead Shoes
Hub Liners
Shoes and Wedges
Floating Rod Bushings

Parts Finished For Application

Dunbar Sectional Type Packing
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Railway Officers

EXECUTIVE

E. E. Norris has been appointed vice-president in charge of operation of the Southern, with headquarters at Washington, D. C., succeeding **Henry W. Miller,** deceased.

C. E. Ervin, chief operating officer of the Mobile & Ohio, with headquarters at St. Louis, Mo., has been appointed a receiver for the road, with the same headquarters at St. Louis, Mo., has been appointed a receiver, with headquarters at Mobile, Ala.

Stanley P. Ruddiman, who has been elected president of the Detroit, Toledo & Ironton, with headquarters at Dearborn, Mich., was born on November 23, 1890, at Detroit, Mich., and received his higher education at Vanderbilt University, from which he was graduated in 1913. Soon after leaving school, he entered the engineering department of the city of

Stanley P. Ruddiman

Opelousas, La., as resident engineer on the installation of a sewer system, after which he became connected with the city engineer's office at Birmingham, Ala. In 1915, Mr. Ruddiman went with the Ford Motor Company at Detroit, and in 1921 he entered the service of the Detroit, Toledo & Ironton as chief engineer. In 1927 he was promoted to vice-president and general manager and in the following year he became president, holding this position until 1929, when he was made vice-president. Mr. Ruddiman retained the latter position until his recent election as president.

OPERATING

V. J. Thompson, assistant to the receiver of the Mobile & Ohio, with headquarters at St. Louis, Mo., has been appointed chief operating officer, with the same headquarters, succeeding C. E. Ervin, who has been appointed receiver.

J. L. Gressitt, general superintendent of the Southwestern division of the Pennsylvania, with headquarters at Indianapolis, Ind., has been transferred to the Northwestern division, with headquarters at Chicago, succeeding **Raymond Swenk,** who has been assigned to duties in the office of M. W. Clement, vice-president at Philadelphia, Pa. **H. W. Jones,** general superintendent of motive power of the Central region, with headquarters at Pittsburgh, Pa., has been appointed general superintendent of the Southwestern division to succeed Mr. Gressitt.

TRAFFIC

H. E. C. Hawkins, general freight agent of the Florida East Coast, with headquarters at St. Augustine, Fla., has been appointed chief freight traffic officer, with the same headquarters, reporting to the receivers. **D. B. Green,** assistant general freight agent at the same point, has been appointed general freight agent, succeeding Mr. Hawkins.

MECHANICAL

M. R. Reed, superintendent of motive power on the Pennsylvania, with headquarters at Harrisburg, Pa., has been promoted to general superintendent of motive power of the Central region, with headquarters at Pittsburgh, Pa., succeeding **H. W. Jones,** who has been named general superintendent of the Southwestern division, at Indianapolis, Ind. **H. H. Haupt,** master mechanic of the central region, with headquarters at Buffalo, N. Y., has been appointed superintendent of motive power of the Eastern and Central divisions at Harrisburg, succeeding Mr. Reed.

OBITUARY

W. T. Westbrook, general agent for the Louisville & Nashville, with headquarters at St. Louis, Mo., died on October 18, at the age of 43 years.

Lucius H. Gordon, chief scale inspector for the Boston & Maine at Boston, Mass., died suddenly on October 30 of a heart attack. Mr. Gordon had been in the employ of the B. & M. since 1905.

Irville D. Waterman, who retired as assistant chief engineer of the New York, New Haven & Hartford in 1929 because of ill health, died at the New Haven hospital on October 30. Mr. Waterman was 54 years old.

J. H. Gibboney, chief chemist of the Norfolk & Western, with headquarters at Roanoke, Va., died in that city on October 30, following an operation. Mr. Gibboney was 54 years old and had been connected with the chemical department of the railroad since 1906, having served as chief chemist since February, 1925.

L. A. Harkness, assistant comptroller of the Illinois Central, with headquarters at Chicago, died suddenly on October 28 while riding home on an Illinois Central suburban train. Mr. Harkness was born in London, England, on November 22, 1874. He was educated at North West Division high school, Chicago, Ill., and entered railway service with the Illinois Central in 1891, serving consecutively until 1912 as clerk, statistician and chief clerk. From the latter date until 1914 he was assistant auditor with the Insular Government, San Juan, Porto Rico, returning to the service of the Illinois Central in 1914 as assistant to the comptroller, later becoming assistant comptroller. During the federal control period, Mr. Harkness served as comptroller for the corporation, afterwards becoming general auditor. He was appointed assistant comptroller in April, 1929.

Harold Wilson, assistant to the general purchasing agent of the Union Pacific System, with headquarters at Omaha, Neb., died on October 30 at St. Joseph hospital in Omaha following an illness of several months. Mr. Wilson was born on March 4, 1890, at Chatham, England, and attended Mittendorf college at Epsom, Surrey. Subsequently, he came to the United States, where he was first employed by the Cleveland Varnish Company. From 1913 to the end of 1916 he served with the Western Steel Car & Foundry Corporation at Hegewisch, Ill. In 1917 he went with the Whitman & Barnes Manufacturing Company, Chicago, as assistant to the purchasing agent, and in March, 1918, he entered the service of the United States Railroad Administration at Washington, D. C. When the railroads were returned to their owners in 1920, Mr. Wilson went with the Union Pacific at Omaha as chief clerk to the assistant to the vice-president. On July 1, 1929, he was promoted to assistant to the general purchasing agent of the system, with the same headquarters, which position he held until his death.

Thomas J. Freeman, general solicitor of the Texas & Pacific, with headquarters at New Orleans, La., died suddenly on October 29 in that city. Mr. Freeman was born on November 29, 1859, at Trenton, Tenn., and was educated at the University of Tennessee and at Cumberland university, graduating from the latter in 1880 with the degree of Bachelor of Law. He entered railway service in June, 1891, as assistant general attorney of the Texas & Pacific, being advanced to general attorney in 1892 and to general solicitor in 1906. After two years, Mr. Freeman was appointed receiver of the International & Great Northern and in September, 1911, he was elected president of the reorganized company. In May, 1912, Mr. Freeman was appointed also first vice-president of the Texas & Pacific and in 1915 he was appointed to the additional position of chairman of the Valuation committee of the I. & G. N. From 1914 to 1915, he served as general counsel of the T. & P., in addition to his positions on the I. & G. N., being appointed general solicitor in the latter year. Mr. Freeman held the latter position until his death, except for the period from 1917 to 1919 when he served as general counsel. At the time of his death, he was also general counsel of the Texas Pacific-Missouri Pacific Terminal Railroad of New Orleans and general solicitor of the Weatherford, Mineral Wells & Northwestern.